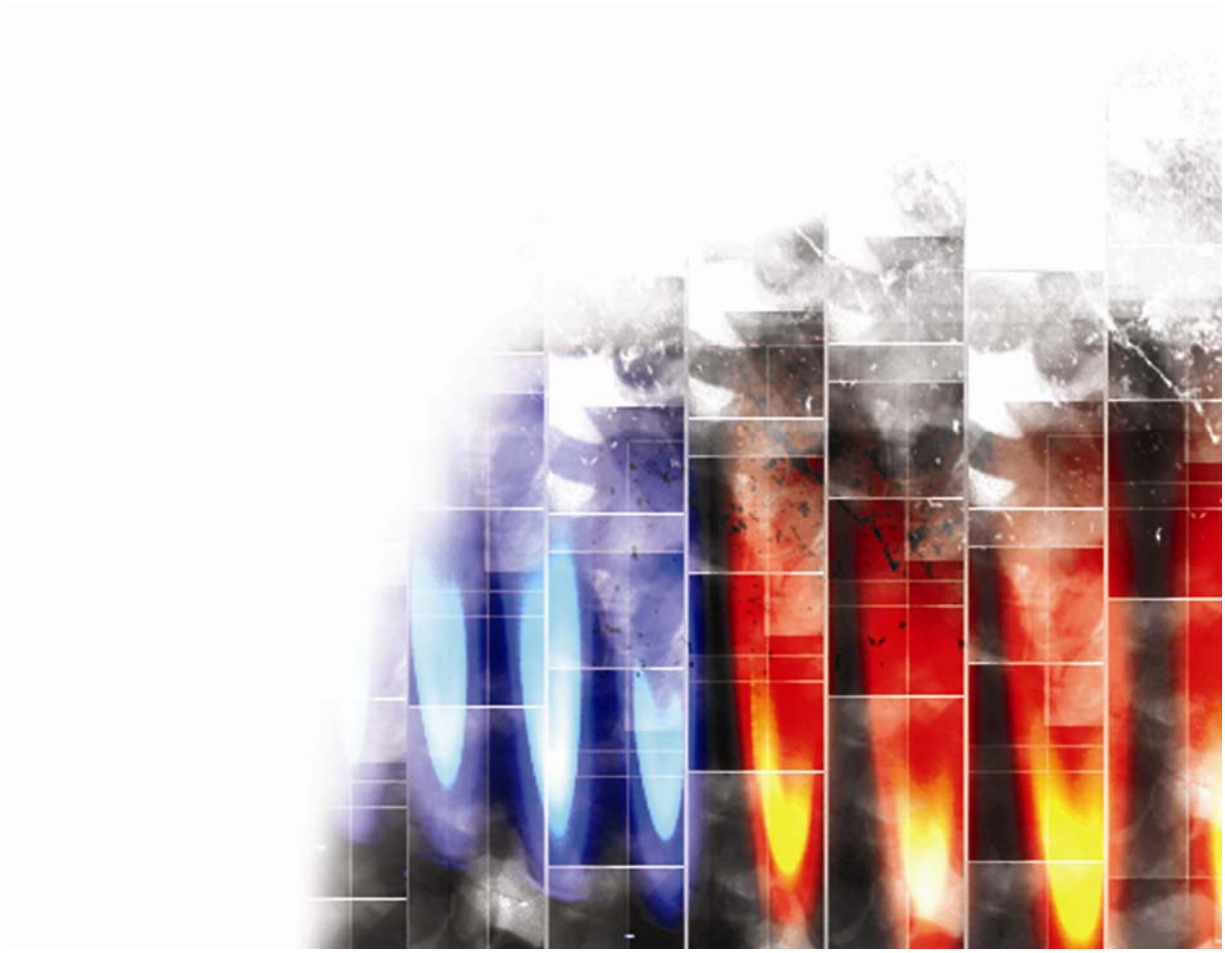
The Vista

Think visually, work visually



User guide

Vista User Guide, Version 1.11a

Copyright & disclaimer

This product is approved for use in Europe and Australia/New Zealand and conforms to the following standards:

European Norms	Australian / New Zealand Standards
EN55103-1	AS/NZS 4251.1
EN55103-2	AS/NZS 4252.1
EN60950	AS/NZS60950

Conformance has been achieved for intended usage in environment E1: Residential.

To ensure continued compliance with EMC Directive 89/336 and the Australian Radio communications Act 1992, use only high quality data cables with continuous shield, and connectors with conductive back shells. Examples of such cables are: DMX: Belden 8102 (100% Aluminium foil screen, 65% Copper braid)

TIP: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not properly installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- reorient or relocate the receiving antenna;
- increase the separation between the equipment and receiver;
- connect the equipment into an outlet on a different circuit from that to which the receiver is connected;
- consult the dealer or an experienced radio/television technician for help.

Disclaimer

Information contained in this manual is subject to change without notice and does not represent a commitment on the part of the vendor. Jands Pty Limited shall not be liable for any loss or damage whatsoever arising from the use of information or any error contained in this manual. It is recommended that all service and repairs on this product be carried out by Jands Pty Limited or its authorised service agents. Jands Pty Limited cannot accept any liability whatsoever for any loss or damage caused by service, maintenance or repair by unauthorised personnel, or by use other than that intended by the manufacturer.

Jands lighting products must only be used for the purpose they were intended by the manufacturer and in conjunction with the user manual. Disconnect mains power when not in use.

© Copyright JANDS PTY LIMITED 2004 - 2006 All rights reserved

Manufactured in Australia by:

JANDS Pty Limited ACN 001 187 837
Locked Bag 15 (40 Kent Rd) MASCOT NSW 1460 Sydney Australia
Phone: +61-2-9582-0909
Fax: +61-2-9582-0999
Web: www.jands.com.au

Contents

Welcome to the Vista 1
What is different about the Vista? 1
What things are the same as on other consoles? 1
About the generic fixture model 1
Need more information? 2

Getting started 3
Setting up the console 3
Switching on 3
Creating and loading shows 5

Patching your rig 8
Adding fixtures to the patch 9
Changing universes 14
Re-arranging fixtures on the patch panel 14
Swapping fixture types 17
Setting fixture properties 19
Controlling the fixtures 21
Viewing the patch in different ways 22
Cloning fixtures 24
Configuring external Ethernet & USB to DMX interfaces 25

Setting up your fixtures 29
The Programmer – about the Live and Clip Tabs 29
The Programmer - Fixtures screen 29
Arranging fixtures in a layout 30
Using the intensity, colour and beam palettes 35
The Programmer hardware controls 47
Assigning fixtures to groups 49
Fanning 50
Creating presets 50
Using the Programmer Quick Picker 54

Working with clips 56
About the timeline 56
Creating clips 65
Storing from the Live tab to another Clip 72
Working with steps 75
Learn timing 83
Inserting a ‘Mark’ step 85
Creating and applying extracts 88
Using commands within clips 90
Grabbing the console output 92

Selecting events by attribute 92
Update Presets and Clips during playback 93
Using the keypad in the programmer window 95
Using effects 96
SmartFX Quick-start tutorials 106
Selecting and sorting fixtures in the timeline 109
Assigning audio to a clip 113
Moving Tracks to another Clip 113
Ganging Clips to synchronise playback 114
Changes history 114

The Playback Control Window 116
Control and Monitor Playback 116

Using the console hardware 121
Console layout 121
Pen tablet module 121
Function keys 121
The modifier keys 123
Playbacks with faders 124
Playbacks without faders 124
Page controls 124
The Super Playbacks controls 125
Configuring the console for Playback 128
Playback status indication 133
Playback popup menu 133
Setting clip properties 135
Group Masters 137
Pages 139
Snapshots 139

Organising and selecting Components 143
The Components Window 143

Monitoring what is going on 147
Using the Output window 148
Using the DMX Window 150

Setting preferences 153
Using SMPTE/timecode 153
User preferences 154
Information about your Vista software 161
Setting Desklight & LCD Contrast settings 161
Changing the console configuration 161
Calibrating the Pen (console only) 162
Using the screensaver 162
Using another language 162
Change the Fixture Library 162
External window utility 162
Date and time 162

Appendix 1, Menu & toolbar reference 163
Patch screen menus 163
Programmer screen menus 165
Toolbars 171

Appendix 2, Installing new software 175
Software Clean Install 175
Installing software updates 175
Connecting to the console via FTP 176

Appendix 3, Using VNC on T series consoles 178
VNC password 178
Starting VNC 178
Connecting to Vista using your Windows PC 178
Connecting to Vista using your Mac 179

Appendix 4, Using serial communication to control clips 181
Connecting to the serial port 181
Enabling the serial port 181
Command Syntax 182

Appendix 5, The touchpad and the pen tablet 183
Using the touchpad 183
Working with the grip pen 184
Tip switch / Pen Tip 184
Using a pen 185
Removing and installing the Duo Switch 188
Precautions on using and handling the Pen-Tablet 190

Appendix 6, Technical information 192
Power 192
Service & Maintenance 192
Battery replacement 192
Installation 193
T4 / T2 Shut down 193
General Specifications 193

Index 196

Welcome to the Vista

Welcome to the User Guide for the *Jands Vista* lighting console. This guide is intended to give you the information you need to get your Vista up and running as quickly as possible.

Note that this guide will be regularly updated as enhancements are made to the Vista. A current version of the manual is available at www.jandsvista.com.

What is different about the Vista?

You'll have noticed that the Vista is a bit different to most other consoles you've used. Instead of a keypad, it uses a pen; instead of relying on you entering hundreds of key combinations, the Vista lets you do everything visually; instead of representing your show as numbers, the Vista represents it as events happening over time.

If you've seen any of the digital editing software packages for sound and video that are available these days, the most different aspect of the Vista, the timeline, will be instantly familiar to you. If not, don't worry, once you start using it you'll pick it up very quickly.

The Vista is different, but that's what makes it so much easier to use. Once you've read this guide you'll have enough of an idea of how this console works to create your first lightshow.

What things are the same as on other consoles?

Apart from the pen and the timeline concept, the Vista contains all the basic elements of live lighting that you're familiar with. You'll find controls for intensity, colour, beam, gobos and so on; you'll find libraries of all the manufacturers' most popular fixtures to choose from; you'll find a console that has the usual faders, buttons and LCD displays.

So don't worry, the Vista has a lot in common with other consoles – we've taken all the best elements of existing consoles and added a whole new dimension to them. You'll soon be right at home with the Vista.

About the generic fixture model

One thing about the Vista that's not immediately obvious is the 'generic fixture model'. What is it? It's a part of the software that works in the background and enables all fixtures, no matter what type or manufacturer to be treated the same way.

Let's say you've programmed a show using one brand of fixture but need to replace some of them with a different kind. Normally this would be a major hassle because you'd have to find a similar fixture then re-program each and every cue.

With the Vista, you can replace a fixture and you don't have to do any re-programming. Why? Because everything you've programmed is stored in generic form rather than as specific DMX channel values. For instance if you've programmed the lights to be Red, the Vista can send that information to any light and achieve the same colour.

Sure, if you replace a fixture that has colour mixing with a fixture that has a fixed colour wheel, you won't expect to get the exact same result, but even in this case, the Vista will adapt and provide as near a match as the replacement fixture is capable of.

Need more information?

If you have questions about the Vista or you'd like more information, go to our website at www.jandsvista.com, or call us on +61-2-9582-0909.

Getting started

Setting up the console

Power

Connect the Vista T or S series console to any mains supply between 100 and 240vAC. The Vista M series obtains power via the USB port

External displays

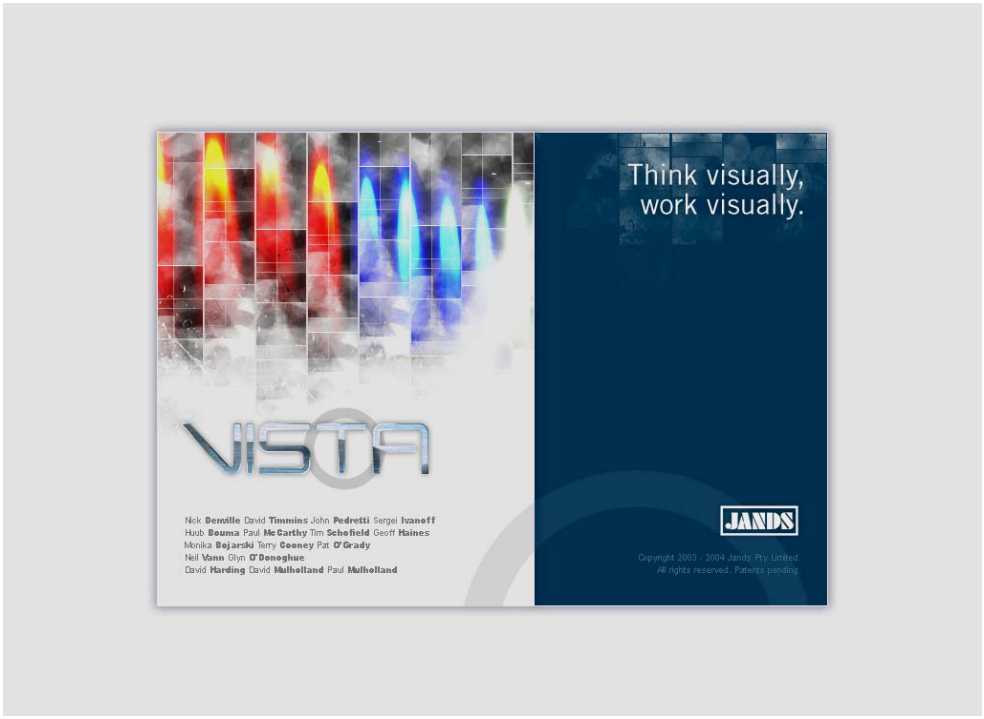
You can attach two external displays to the Vista T series consoles using standard VGA connectors. The screen resolution is 1024x768. For Vista S series consoles, monitor configuration will depend on the configuration of the computer you are using.

Desk Lights

You can attach two Littlelite or equivalent desklights to the Vista T series console and one to the S series console.

Switching on

When you switch the power on or launch the application on your PC, Vista starts up and displays the opening splash screen:



Once it finishes loading the program, Vista displays the main screen:

This screen is a blank canvas, waiting for you to create a new show. To get started you use the buttons on the toolbar at the bottom of the screen:

This button…	**does this…**
VISTA	displays the Vista menu where you can load and save shows, set user preferences, import and export shows and close down or restart the console.
Patch	displays the Patch window so you can configure your DMX settings
Console	displays the Console hardware simulation window
Programmer	displays the Programmer window in either Live or Clip edit mode. The two icons select the programmer mode as follows:
	displays the Programmer Timeline view, which is only available if you're editing a clip. If you're in Live mode, click the Store button or choose Save from the File menu to enable this mode.
	displays the Fixtures window so you can set up your lights and make selections for Live control or Programming.
Playback Control	When you have one or more clips running, this button displays the Playback control window so you can see them all at a glance. You can also use this window to control playback.
Components	Once you've saved some Groups, Presets clips, etc this button displays the Components window where you can select, modify, duplicate and organize these components.
Screens	With this button you can select one of the following overlay screens - normally for display on the external monitors:
- DMX	Displays the Output window that shows DMX output values channel by channel
- Output	Displays the Output window that shows you what each fixture is doing

This button…	does this…
History	Displays the Programmer History where you can undo changes and edit clips you've been working on
Snapshots	You can record, update and activate snapshots using the Snapshot selector. Each snapshot stores the exact state of the playback controls at the time it is created.
Release all	Clicking this button at any time releases all the fixtures from their current settings as determined by the clips that are running and returns them to their default state.

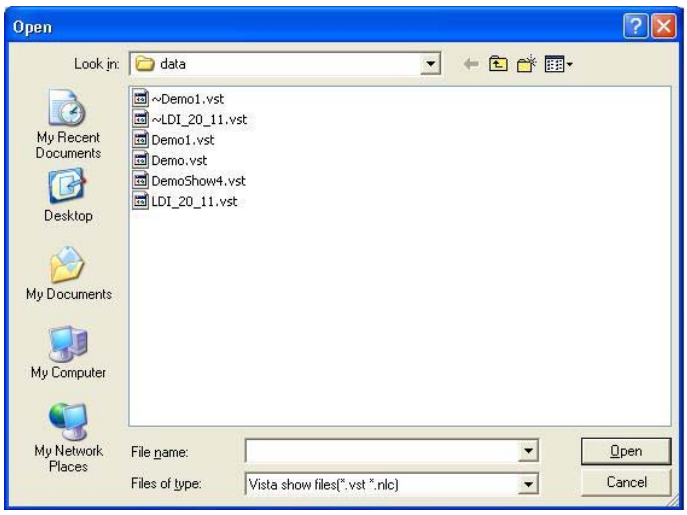
Creating and loading shows

Creating a show

To create a new show at any time, choose the New option from the Vista menu.

Loading existing shows

To load a show you've already created, choose the Load option from the Vista menu. Vista displays the Open window:

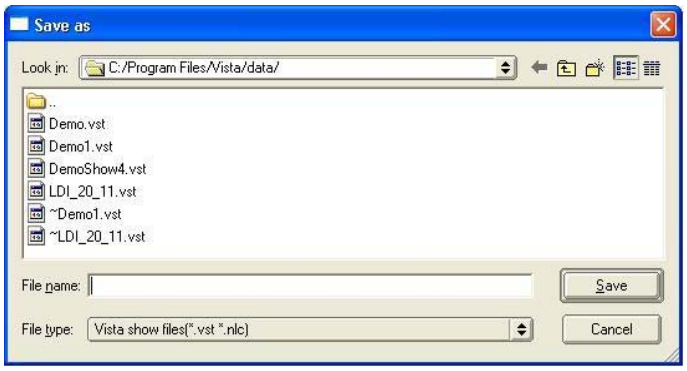


To load a show you've previously saved (or loaded into the console using the import function), find the directory containing it, then click on the filename to select it and hit the Open button to load it.

Saving shows

To save a show at any time, choose the Save option from the Vista menu. As with any computer, it's a good idea to save regularly in case of power failure.

The first time you save a new show, Vista displays the Save As window:



Type a name for the file and choose the directory in which you want to save it, then click the Save button. Once you've named the file, each time you choose the Save option from then on, Vista overwrites that file with the new details without displaying this window.

Automatic backups

Every time you save a show Vista automatically generates a backup file. Backups have the same name but begin with a tilde (~). You can open backups in the same way as other files and use them as show files.

Saving copies of shows

To save a separate version of a show with a different name, choose the Save As… option from the Vista menu. You can then give the file another name and save it in another directory if you like.

Password-protecting your show file

To protect your show from changes choose the Lock/Unlock… option from the Vista menu. Once you've assigned a password to the show you have to enter the password to over-write that file.

Importing shows

You can load shows you've created on a PC or another console onto the Vista. The shows must be on a CD or any kind of storage device that connects to the Universal Serial Bus (USB) port (such as a memory stick).

To load a show, attach the USB device or put the CD in the CD drive and choose the Import option from the Show menu. Choose either the CD or USB option from the pop-up menu to display an Open screen, then choose the show file you want to load.

Once you've loaded the show you should use the Save option from the Show menu to save it onto the Vista hard drive immediately.

Exporting shows (backing up)

It's extremely important to make backup copies of your shows. Like any other computer, the Vista stores your shows on a hard drive, and although it's extremely unlikely, if this drive were to fail (e.g. if the console was dropped) you could lose all the show files stored on it.

For this reason we recommend that you make regular backups of your work, either onto CD or onto a storage device that you can connect via a USB port. The Vista T series consoles include a CD burner so you can burn backup copies of your show files onto CD at any time. On S series consoles backup options will depend on the computer being used.

T Series

To copy shows onto CD or an external storage device:

1. Put a blank CD into the CD drive or connect the device to the USB port.
2. Choose the Export option from the Show menu.
3. Choose either the CD or USB option from the pop-up menu to display the Save As… window.
4. Name the file, choose a directory on the CD or storage device and hit the Save button.

S Series

To copy shows onto CD or an external storage device:

1. Choose the Export option from the Show menu.
2. Select the show file to copy (Vista automatically selects the show you are working on).
3. Name the file, choose a directory on the computer or storage device and hit the Save button.
4. If your computer includes a CD burner and software you can burn this file to a CD.

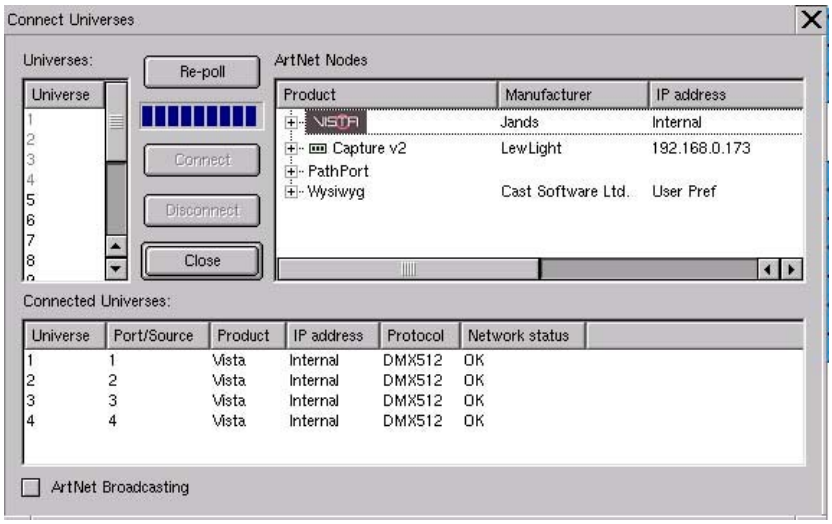
Deleting shows

To delete a show, choose the Load… option from the Vista menu, then right-click on the show name and choose 'Delete' from the popup menu.

Patching your rig

Once you've got everything connected to the console you can patch all the fixtures the way you want them using Patch screen.

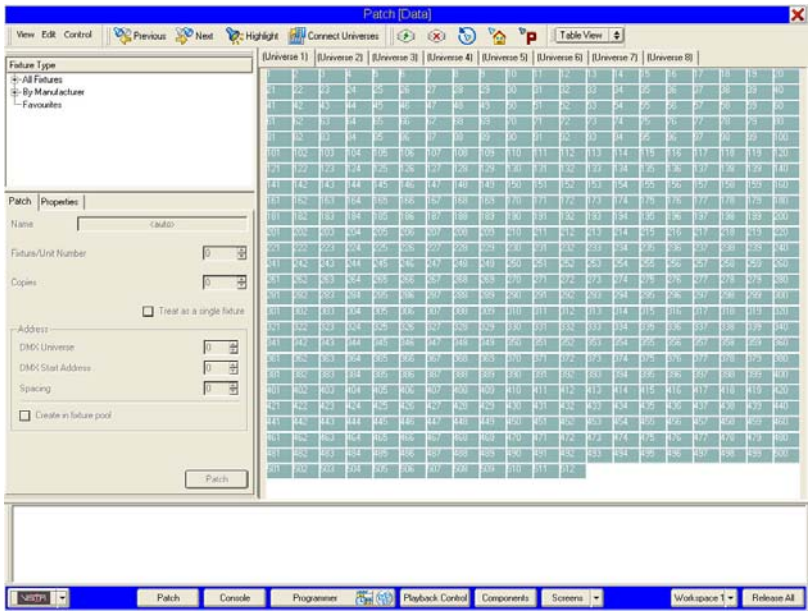
When you click the Patch button on the toolbar for the first time, Vista displays the Connect Universes screen:



You use this screen to connect external Ethernet-DMX interface boxes see *Configuring external Ethernet-DMX interfaces - Page 25* for details). If you aren't using any external DMX boxes, you don't need to adjust any of these settings, just click Close to display the Patch screen.

Tip: You can also display the Connect Universes screen at any time while on the Patch screen by pressing the Connect Universes button on the toolbar at the top of the screen.

When you close the Universe Setup screen, Vista displays the Patch screen:



This is where you set up all the fixtures in your rig. You tell the Vista which DMX channels each fixture is assigned to, and in which universe, and can set a range of parameters to control how each fixture operates.

Adding fixtures to the patch

The Fixture Type box in the top-left corner of the screen gives you a few ways to add fixtures to the patch. You can:

- choose a fixture from the 'All fixtures' list, which lists them in alphabetical order
- choose a fixture from the 'By manufacturer' list, which lists them by manufacturer and then in alphabetical order
- choose a fixture from the 'Pre-release' list, which includes fixtures that have recently been added to the Vista library but that are not fully tested. Be sure to check that any fixture you use from this list performs as required before you use it on a show.
- choose a fixture from the 'Recent' list, which lists the last 10 fixtures types that you've patched.

Choosing a fixture from the complete list

To add a fixture from the complete list, click the '+' symbol beside 'All fixtures' in the Fixture Type box. Vista displays the complete list of fixtures available:

Scroll down the list until you find the fixture you want.

Choosing a fixture by manufacturer

If you click 'By manufacturer' instead, Vista displays the list of manufacturers:

1. Click the '+' symbol beside the name of the manufacturer you want to display the list of fixtures they offer.
2. Scroll down the list until you find the fixture you want.

Adding the fixture to the patch panel

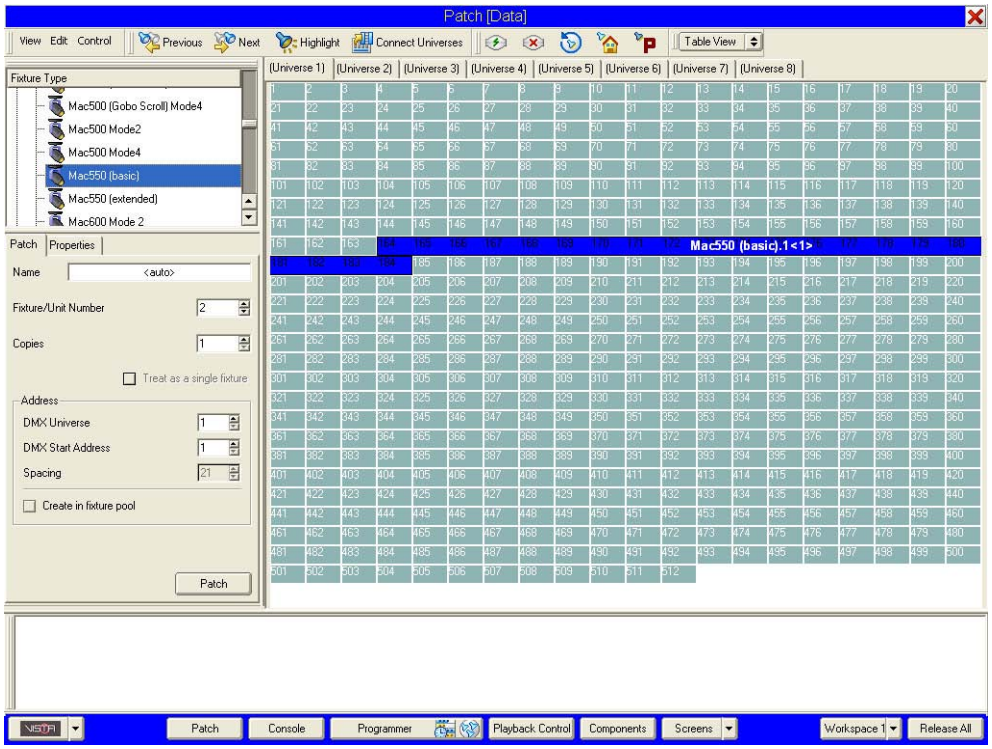
Once you've selected the fixture you want, there are three ways to add it to the patch panel:

- you can drag and drop one fixture at a time onto a specific DMX location on the panel, or
- you can use the Patch tab to place multiple copes of the fixture onto the patch panel ,or
- you can use the on-screen keypad to place multiple copes of the fixture onto the patch panel.

Dragging and dropping individual fixtures

To patch fixtures one at a time, just click on the name of the fixture in the Fixture type box, and drag the fixture over to the spot on the patch panel where you want it.

When you 'drop' the fixture, Vista fills the required number of DMX channels with that fixture's details. This example shows a Martin Mac550 fixture that uses 21 DMX channels, dropped onto channel 164:



Once you've dropped a fixture onto the patch panel you can move it around to any channel by clicking on it and dragging it to a new location.

Vista represents the fixture as a dark blue bar with a black border and two numbers after the name. The bar covers as many DMX channels as the fixture needs, and some fixtures will take up more channels than others.

The dark blue colour shows that this fixture is currently selected. If you click anywhere else in the patch panel, Vista de-selects the fixture and changes the colour to light blue to show that it's no longer selected.

In our example above the fixture is called 'Mac550 (basic).1 <1>'. This title consists of three components:

- a **name** (*Mac550 (basic)*), which you can change if you want to using the *Edit:Rename* option (also available in the pen pop-up menu)
- a **type ID number** (*.1*), that Vista assigns automatically. This number identifies this fixture *of this particular type*.
- a **unique ID number** (<*1*>), that Vista also assigns automatically. This number identifies the fixture uniquely within the whole system, across all the universes (i.e. no two fixtures will ever have the same unique ID number).

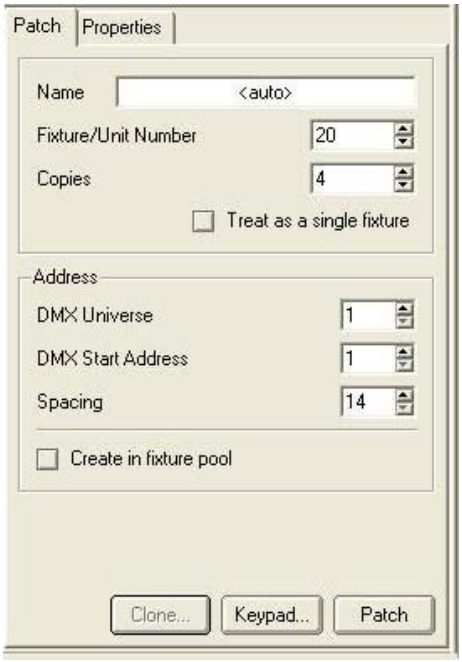
Patching multiple fixtures with the Patch box

Adding fixtures one at a time could be very time consuming, so if you're working with a big rig, the faster way to patch your fixtures is with the Patch box.

You use this feature to add multiple instances of a fixture at once. To do this:

1. Select the fixture you want from the 'All fixtures' or 'By manufacturer' lists in the Fixture Type box.

2. If not already selected, click the Patch tab to display the Patch box:



3. If you want to give the fixture a name, type it in the Name field. If you leave this blank, Vista gives the fixture the name used in the Fixture Type box.

4. If you want to assign a specific set of unique ID numbers to this group of fixtures, click in the Number from field and set the unique ID number (e.g. <*20*>) you want for the first fixture in the group. If you don't set this, Vista assigns the next valid number.

5. In the Copies field, enter the number of instances of this type of fixture you want to add.

6. Click the 'Treat as a single fixture' checkbox if you want all copies to be patched as one fixture. Use this option, for example, when patching multiple dimmers as a single fixture.

7. In the DMX Universe field, Vista automatically displays the number of the currently selected universe. If you want to add these fixtures to another universe, enter the universe number.

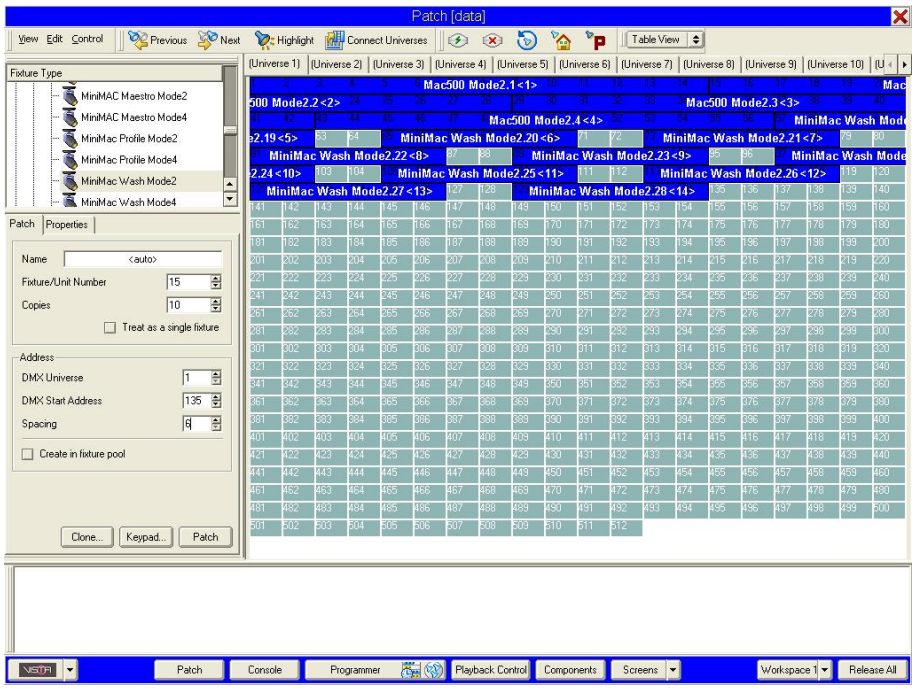
8. In the DMX Start address field, set the number of the DMX channel where you want this group of fixtures to start. If you've already added any fixtures to this universe, Vista displays the next channel number in sequence.

9. In the Spacing field, Vista displays the number of channels each instance of the fixture you've selected will take up. If you want to leave empty channels between each fixture you can increase this number. For example, if a fixture normally uses twelve channels and you increase this number to 14, Vista leaves a gap of two channels between each fixture in the group.

10. Click the 'Create in Fixture Pool' checkbox if you don't want Vista to patch the fixtures automatically. If this box is checked, Vista creates the fixtures in the pool area and you can manually drag them to the required address. This option is useful when patching multiple dimmers that are not on sequential DMX addresses as a single fixture.

11. When you've set all the fields the way you want them, click the Patch button. Vista adds the group of fixtures to the patch panel.

In this example we've added four Mac500s, followed by ten MiniMac Washes, with a spacing of two channels between each MiniMac:



Tip: If you've already added a bunch of fixtures between say, channel 10 and channel 50, and you add another batch starting at channel 1, Vista fits as many of them as it can into channels 1 to 9, then 'flows' the rest over to channel 51.

Patching multiple fixtures with the virtual keypad

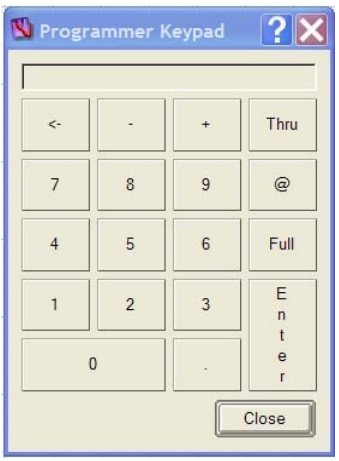
Another way to patch multiple fixtures is by using the on screen keypad.

To add multiple instances of a fixture, using the keypad:

1. Select the fixture you want from the 'All fixtures' or 'By manufacturer' lists in the Fixture Type box.

2. In the DMX Universe field, Vista automatically displays the number of the currently selected universe. If you want to add these fixtures to another universe, enter the universe number.

3. If not already selected, click the Keypad button to display the on-screen keypad:



4. Use the keypad to type the Fixture/Unit number(s) and the DMX channel where you want this group of fixtures to start.

For example:

- 1 Thru 5 @ 20 patches the current fixture type as unit numbers 1, 2, 3, 4, 5 starting at DMX channel 20 on the current universe.
- 1 Thru 10 – 3 Thru 7 @ 200 patches the current type as unit numbers 1, 2, 8, 9, 10 starting at DMX channel 200 on the current universe.
- 100 @ 101 + 113 + 125 patches the current type as unit 100 to DMX channels 113, 125 and 200 on the current universe.

Hardware Keypad

When the on-screen keypad is open you can also use the console or PC keyboard or a separate keypad to enter patch information. The 'Num lock' key should be on and in addition to the 1-9, decimal point, +, - and Enter keys, you can use the following keys:

This button…	does this…
/	Thru
*	@ - At
F	Full
Backspace	<- Backspace (Clear)

The Recent fixtures list (V1.10)

Vista keeps track of the last 10 fixtures that you've patched and stores these entries in the 'Recent' folder. This list is stored with the Vista application and does not transfer with your show file.

Changing universes

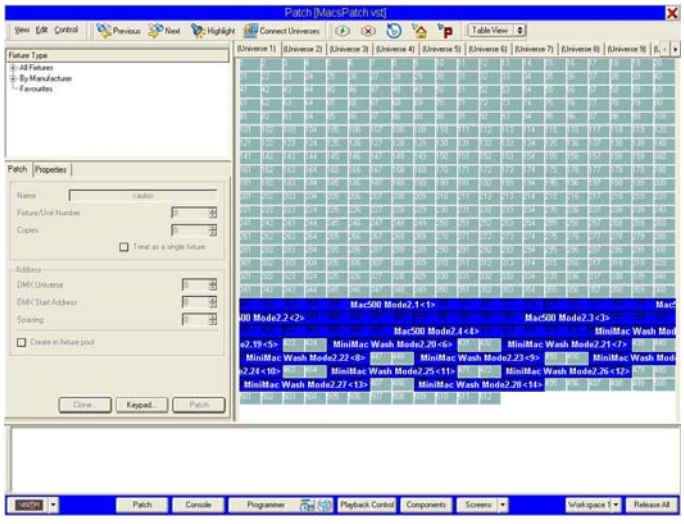
Each universe can only handle a certain number of fixtures, depending on the number of DMX channels each fixture needs. To add fixtures to another universe, click the Universe tab at the top of the patch panel to display the next set of DMX channels.

Re-arranging fixtures on the patch panel

Moving fixtures around the patch panel

Once you've added fixtures to the panel you can re-arrange them however you want. Just select the fixtures you want and drag them to a new channel; when you take the pen off the screen, Vista re-arranges them all from that channel.

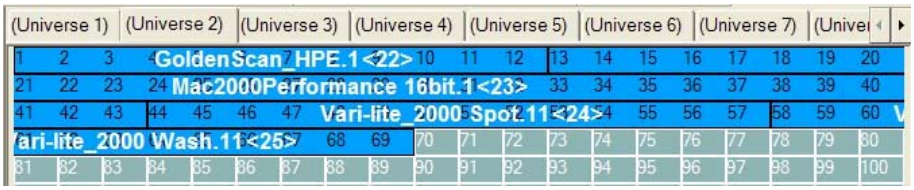
Note that you can't place them in such a way that any of the channels will 'fall off' the end of the universe. For instance, in our example the fixtures we've added take up channels 1 to 135, so we can't place that batch of fixtures any closer to the bottom of the universe than channel 379:



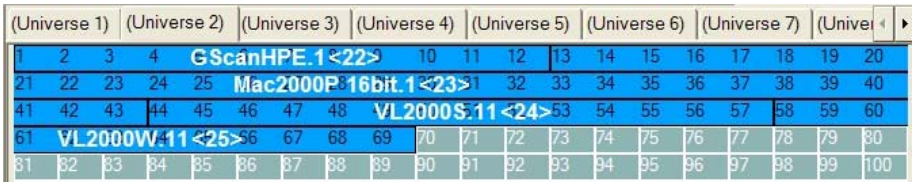
Displaying fixture short names

Vista has a standard abbreviated name for every fixture. To display these short names instead of the full-length names, choose the Short Names option from the View menu.

Here's an example of the Patch screen showing the full-length names:



And here's the same screen with the Short Names option selected:



If you have short names selected and want to display the full-length names, select the Short Names option from the View menu again to restore the full names.

Renaming fixtures

To rename one or more fixtures, select them with the pen and choose the Rename option from the Edit menu. This command is also available from the pen pop-up menu in both the Patch and Programmer (fixture view) windows.

Choosing the Rename option displays the Rename fixtures window:

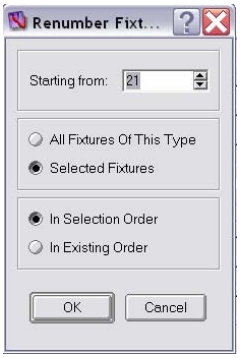
Enter the name you want to give the selected fixtures and click OK. Vista renames all the fixtures you had selected.

Renumbering fixtures

To change the unique system-wide ID number (e.g. <*12*>) of one or more fixtures:

1. Select the fixtures with the pen.

2. Choose the Renumber option from the Edit menu (this command is also available from the pen pop-up menu). Vista displays the Renumber fixtures window:



3. In the Starting From field, enter the new ID number. If you are re-numbering multiple fixtures, Vista assigns this number to the first fixture in the sequence.

4. If you want the change to apply to all the fixtures of this type in the current universe, instead of just the fixtures you selected, click the 'All Fixtures of this type' button. If you want to renumber the fixtures in the order in which you selected them, choose the 'In Selection order' button (this can be useful if you want to match the fixture numbers to a specific design layout).

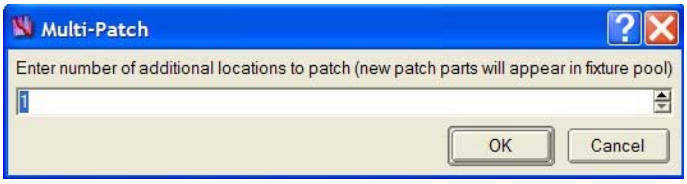
5. Click OK to renumber the fixtures.

Adding fixtures with the same ID

Often with fixtures such as dimmers you need to multi-patch or add extra copies of the same fixture at different DMX addresses. To do this:

1. In the Patch window, select the fixture you want to add to.

2. Choose the Multiple patch option from the Edit menu (this command is also available from the pen pop-up menu). Vista displays the Multi-patch window:



3. Enter the number of extra locations to patch. Vista creates the extra fixtures in the Fixture pool with the same ID as the original.

4. Drag the extra fixtures to the required DMX channel.

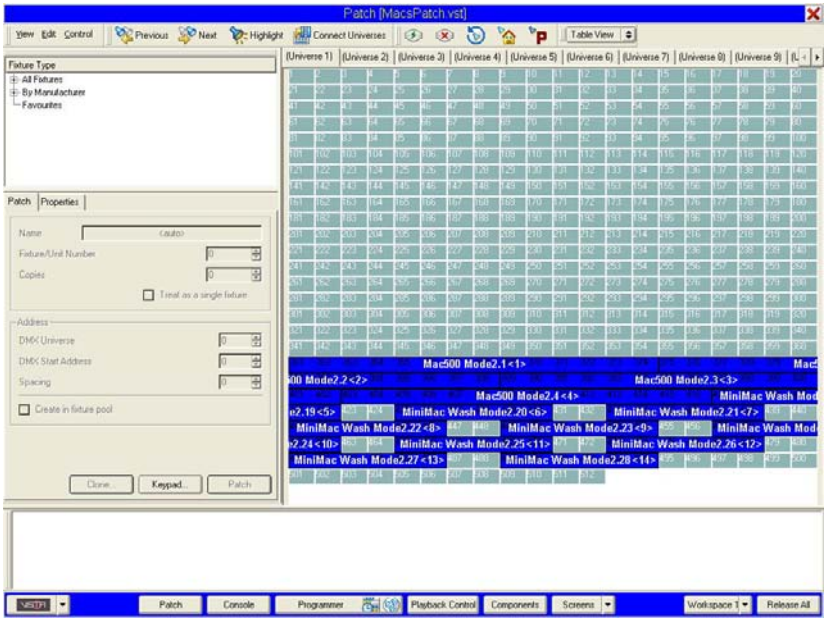
Swapping fixture types

One of the best features of the Vista is the ability to swap fixtures after you've patched them and programmed them to clips. This is particularly useful if you have to exchange one fixture for another (e.g. because of a breakage) because you can do so without having to re-program anything – Vista automatically adapts to the change.

To swap fixtures you must first put them into the pool.

Putting fixtures into the pool

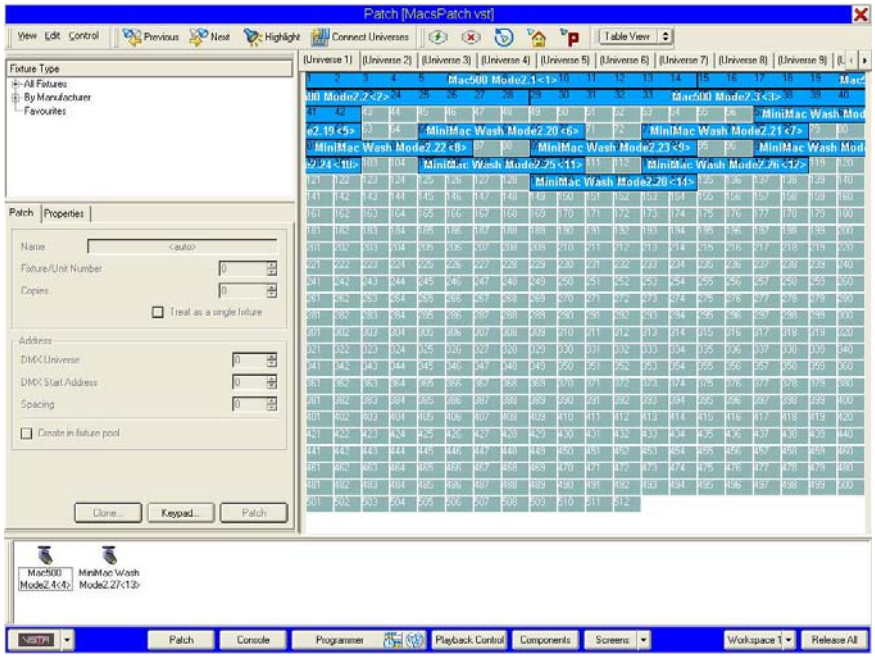
To do this, you drag and drop the fixtures you want to swap from the patch panel into the white area at the bottom of the patch panel, known as the 'pool':



Tip: You can also put a fixture in the pool by choosing the 'Unpatch' option from the pen pop-up menu.

The pool is also a handy place to store fixtures that you're going to want later but don't need right now. When you need them you can just drop them back into the patch panel without having to select them all over again from the Fixture type lists.

This example shows two of the fixtures we added above that have been dragged and dropped into the pool:



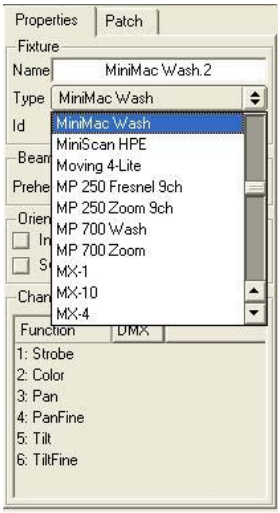
They'll just sit there until you pick them up and drop them back onto a channel.

Swapping a fixture type

While a fixture is sitting in the pool, you can change its type. To do this:

1. Select the fixture or fixtures in the pool you want to change. You'll notice that the Type drop-down list in the Properties box is now available.

2. Click the arrows beside the fixture name in the Type field to display the list of fixtures in alphabetical order:



3. Choose the type of fixture you want from the list. Note that you can type the first letter of the fixture's name on the keyboard to jump to that place in the list (e.g. pressing the letter 'A' takes you to the Acrobat 250 FE at the top of the list).

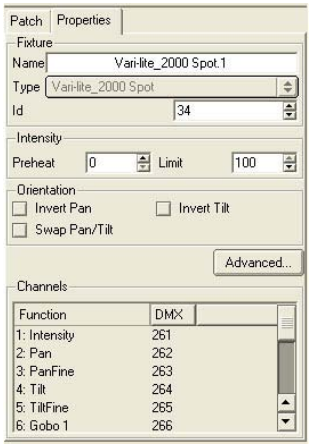
Deleting fixtures

You can delete fixtures from the patch panel at any time To do this, select the fixtures you want to delete and either press the Delete key or choose Edit:Delete.

Setting fixture properties

Once you've added the fixtures to the patch panel and placed them where you want them, you can set a number of properties for each fixture using the Properties box.

To view and set the properties for one or more fixtures, use the pen to select the fixtures you want on the patch panel. Vista displays the details of those fixtures in the Properties box:



Tip: If you select multiple types of fixture, Vista displays the details of the first type you selected. If the Patch box is currently displayed, press the Properties tab to display the Properties box.

This box has four sections that show you various properties of the fixtures you've selected.

Fixture

Name	The name you entered or Vista assigned to this fixture when you dropped it onto to the patch panel. You can edit this here if you want to.
Type	This field is only active when the selected fixture is in the pool at the bottom of the patch panel. You use it to change the type of fixture without having to remove it (see *Swapping a fixture type*).
Id	The unique system-wide ID number assigned to this fixture when you dropped it onto the patch panel. You can change this number here if you want to, but note that Vista won't allow you to use a number that's already assigned to another fixture.

Intensity

Preheat	A percentage value that sets the voltage the fixture lamp will sit at until you switch it on. This is useful for lamps such as Par 64s that take time to switch on from a cold start.
Limit	A percentage value that determines the maximum intensity the fixture will ever reach. This is useful if you want to prolong lamp life or prevent fixtures from ever reaching full intensity.

Orientation

Invert pan	Selecting this checkbox reverses the sweep of the pan for this fixture. This is useful when you're coordinating the sweep directions of fixtures hung in different directions.
Invert tilt	Selecting this checkbox reverses the sweep of the tilt for this fixture. This is useful when you're coordinating the sweep directions of fixtures hung in different directions.
Swap pan/tilt	Selecting this checkbox swaps the pan and tilt controls, so the fixture will pan when given a tilt command and vice-versa. This is useful for coordinating the movements of fixtures hung on vertical trusses or pipes.

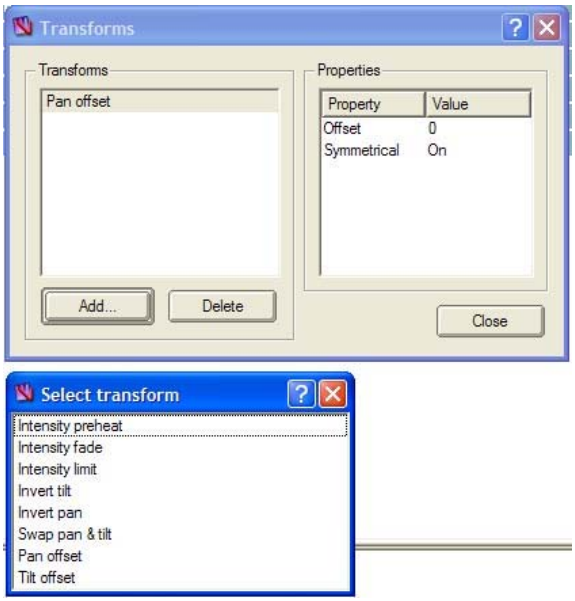
Channels

This is a list of the features of the fixture and which DMX channel is controlling each feature.

Advanced properties

The advanced button provides access to a number of Fixture 'Transformers' that allow you to further customize fixtures. For example the Pan and Tilt Offset parameters allow you to correct the home position for fixtures that are hung at an angle.

To add a transform click the Advanced button to open the transform window then click the Add button to choose a transformer.



Some of the transformers are also available from the Properties tab as described above. To choose one of the advanced transformers click on Pan offset or Tilt Offset.

This option…	**does this…**
Offset	Sets the offset angle. For example setting a Pan offset of 45 would move the fixtures Home position by 45 degrees
Symmetrical	Determines whether the fixture has equal movement from both sides of the Offset position. For example a Fixture with a Pan range of 360 degree and an Offset of 45% would move 135 degrees in one direction and 225 degrees in the opposite direction. Since this might produce unexpected results with effects and other programming it's possible to set Symmetrical On, but this will limit the fixture's movement. In this example it would mean the fixture would only move 135 degrees, in each direction, from the Home position.

Controlling the fixtures

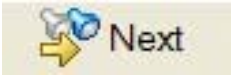
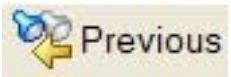
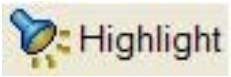
The Patch screen has five buttons at the top that give you control over whatever fixtures are currently selected on the Patch panel:

Note that only some fixture types support these functions; refer to the user guide for your fixture types.

This button…	does this…
Strike	Ignites the lamps in the selected fixtures.
Douse	Switches off the lamps in the selected fixtures off.
Reset	Resets the selected fixtures to their factory default settings. This is useful if a fixture has a control problem and you need to get it 'back to normal'.
Home	Puts the fixture back to its home position.
Park	Parks the fixture permanently in whatever setting it's currently in. Useful for providing permanent lighting for backstage and so on. Once you've parked a fixture it will ignore any further instructions.

Tip: These five commands are also available through the Control menu and by right-clicking on the fixture icons in the Programmer.

There are four other buttons on the toolbar at the top of the screen:

This button…	does this…
	De-selects whatever is selected and Selects the next fixture in this universe.
	Selects the previous fixture in this universe.
	Switches the selected fixture on. This is a toggle switch – while it's selected, Vista switches on fixtures as you select them.
	Displays the Connect Universes screen so you can attach external Ethernet-DMX interface boxes. See *Configuring external Ethernet-DMX interfaces.*

Viewing the patch in different ways

Vista gives you two different views of your patch so you can get different types of information about your patching configuration. To change the view, click the drop-down menu in the top-right corner of the Patch screen:

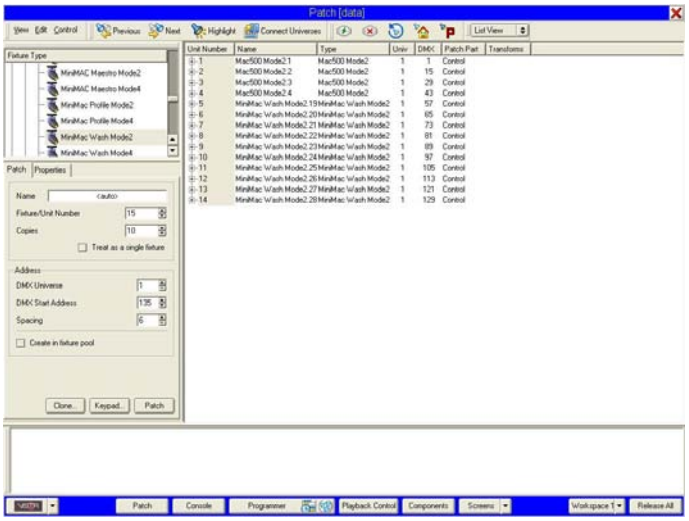
There are two options: Table and List and view.

Table view

The Patch screen defaults to the Table view, as shown earlier in this section. This is the view you will use most of the time: here you can drag and drop fixtures into the patch panel for each universe and arrange them the way you want them.

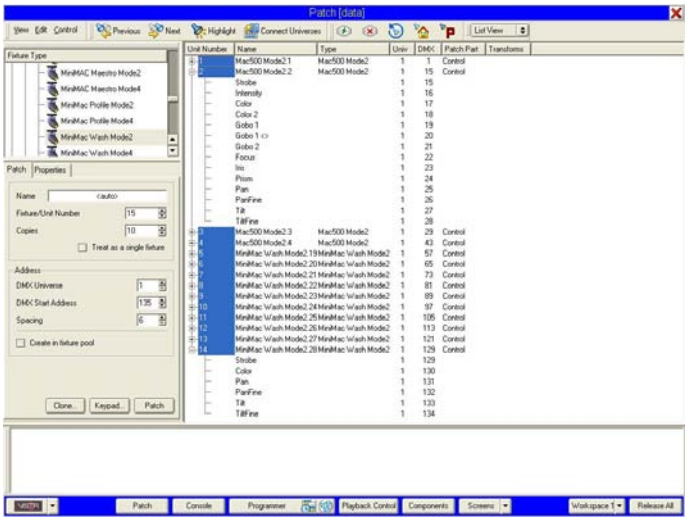
List view

If you choose the List option from the drop-down list, Vista displays the List view screen. To select fixtures in this view click on the Unit ID number(s):



This screen lists all the fixtures you've patched in global ID number order.

If you click on the '+' symbol beside a fixture's name, it displays the universe and DMX channel that each aspect of that particular fixture is using:



The Transforms column any advanced properties (transformers) that have been added to the fixture.

Tip: This column is only meaningful when you have a fixture that consists of two components (such as a colour changer in front of a Par). In this case the colour changer will show 'Control' in this column, and the dimmer will show 'Intensity'.

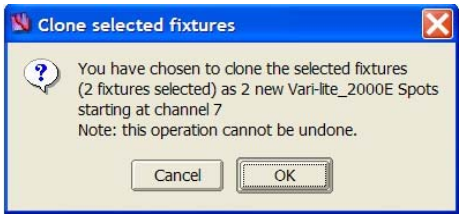
The Patch Part column shows one of two entries: Control or Intensity. 'Control' is all aspects of the fixture other than intensity.

Cloning fixtures

Cloning is a special way to add fixtures to your patch. This method is useful if you've already programmed your show and want to include some new fixtures automatically in any Clips, Groups and Presets that you've created.

To clone one or more fixtures:

1. Select the type of fixture you want to add from the 'All fixtures' or 'By manufacturer' lists in the Fixture Type box.
2. Select the fixture(s) you want to clone from the Patch table or list view.
3. Click the Clone button. Vista displays the Clone Selected fixtures window:


Clone selected fixtures
You have chosen to clone the selected fixtures
(2 fixtures selected) as 2 new Vari-lite_2000E Spots
starting at channel 7
Note: this operation cannot be undone.
Cancel
OK

4. Click OK to confirm and the new fixtures are added to the patch.

Note: The Clone button may be greyed out when you first select a fixture. Selecting a second fixture will make the button active.

Importing and exporting patch information

To save time, you can import and export patch information from comma-separated value (.csv) files.

Exporting the patch

To export a patch to a .csv file, choose the Export Patch option from the edit menu. Vista displays the Save As window so you can name the file and choose a directory for it.

Importing the patch

You can also import a .csv file containing your patch information. The easiest way to do this is to create a spreadsheet laid out as follows and save it as a .csv file using the Save as function.

ID	Univ:Adrs	Fixture Type	Fixture Name
1	1:1	Vari-lite_2000E Wash	Vari-lite_2000E Wash.1
2	1:16	Vari-lite_2000E Wash	Vari-lite_2000E Wash.2
3	1:31	Vari-lite_2000E Wash	Vari-lite_2000E Wash.3
13	1:401	GenericDimmer	GenericDimmer.1
13	1:332	GenericDimmer	GenericDimmer.1
14	1:402	GenericDimmer	GenericDimmer.2
15	1:403	GenericDimmer	GenericDimmer.3
25	2:1+3:1	VL5 Mode3	VL5 Mode3.1
26	2:11+3:2	VL5 Mode3	VL5 Mode3.2
35	3:21	Not Sure	

In this example the spreadsheet has a header row, which is optional, but shown here for explanation. The columns are laid out like this:

- an **ID** (*1)*, which determines the fixture's unique ID
- a **Universe : DMX address number** (*1:1*), that sets the Universe and DMX start address for this fixture
- a **Fixture Type** (<*Vari-lite_2000E Wash* >), that sets the type of fixture that will be patched
- a **Fixture Name** (<*Vari-lite_2000E Wash.1*>), that sets the fixture name (this is optional)

For two-part fixtures (i.e. fixtures with an external dimmer that is patched separately) you need to include both parts of the patch included in the Universe/Address column. The format for the two parts is Control+Intensity.

In the example above, Fixture ID 25 is a Varilite VL5 with the control part patched to Universe 2 Channel 1 and the Intensity part patched to Universe 3 channel 1.

The ID, Universe:DMX Address information and Fixture Type must be in the .csv file. If you don't specify a valid Vista Fixture name, Vista prompts you to choose the correct fixture name from a list when you import the file. If you don't specify a Fixture name, Vista uses a default name.

Configuring external Ethernet & USB to DMX interfaces

Vista consoles provide four internal 512-channel DMX outputs (or universes). You can add up to twelve more by connecting your own external ArtNet or PathPort boxes to the Ethernet port. You can also add DMX outputs to a console or to the Vista App running on a PC using the Vista USB-DMX interface boxes.

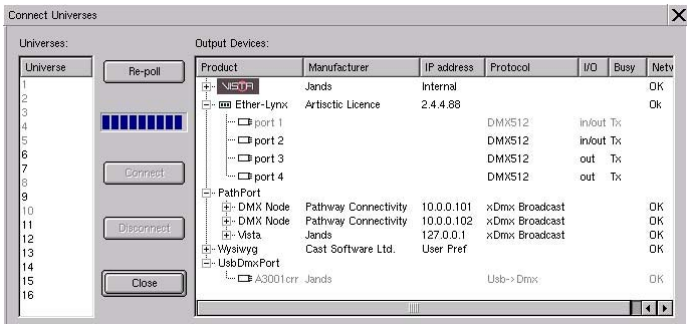
To configure these connections, press the Connect Universes button on the Patch screen toolbar.

This screen shows any nodes connected via Ethernet or USB to the console or PC , and the connection details of the universe. You use it to set up the DMX connections for each of your universes and to check that they are working correctly.

Tip: If you're only using four Vista's internal universes you don't need to use this screen.

Connecting USB & Ethernet-DMX interfaces and ArtNet-compatible devices

The *Output Devices* box on this screen lists all the USB-DMX, Ethernet-DMX connection boxes and ArtNet compatible devices attached and *visible* to the Vista:



In this example you can see four entries: one is the Vista logo, representing the internal universe connection; the others are Ether-Lynx (Art-net) 'Pathport' and USBDMX port, which are the external interface boxes attached via Ethernet and USB.

Tip: If you can't see a device that you've attached to the Vista it may still be possible to connect to it by using the 'ArtNet Broadcasting' mode.

To connect an external interface box:

1. Select the universe you want to run through a particular box from the Universes list in the left hand side of the screen.

2. Click on the box title in the Output Devices list to select it, then click the Connect button. Depending on the type of interface box you are using Vista will either connect automatically, or display the Enter External DMX source window:

Tip: For Pathport devices click on the 'Pathport' line rather than on the 'DMX Node' lines.

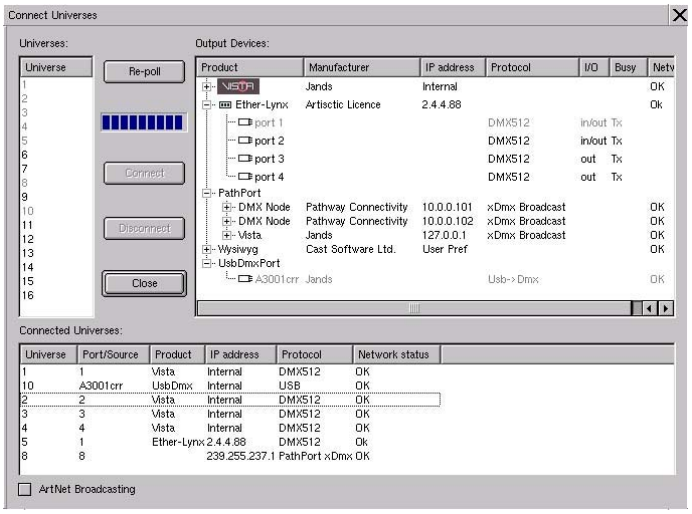
3. Click on the arrows beside the Source field and choose the number of the universe for the box you've connected to. For example, if you've set up a PathPort box to handle universes 7 and 8, you'd choose one of those numbers in this window.

4. If you are using Pathprt 'Quick Universes' click on the arrows beside the Quick Universe field and choose the number of the universe for the box you've connected to.

Tip: Pathport nodes are shipped with a default Quick patch By default, all A ports are patched to Quick 1 and all B ports are patched to Quick 2.

Vista polls the box to check that the connection is working, and displays the details of the connection in the Connected Universes box. It also greys-out the number of the universe you've connected to in the Universes list. You can check this connection at any time by clicking the Re-Poll button.

This example shows a Vista with an Artistic Licence Ether-Lynx Hub with one port connected, a PathPort device with one port connected and a USB-DMX device with one ports connected:



Note that in this example, universes 1 to 4 have been left as Vista internal universes, and the external boxes have been connected to universes 5 , 8 and 10.

Disconnecting an interface box

To disconnect an interface box:

1. Click on the title of the interface box in the ArtNet nodes section of the screen.

2. In the Connected Universes section of the screen, click on the connection you want to remove.

3. Click the Disconnect button. Note that when you disconnect an interface, the universe it was connected to becomes available once more in the Universes list.

Tip: To change the settings of an interface box you have to disconnect it and re-connect it with the new settings.

ArtNet Broadcast Mode

Some ArtNet-compatible devices may not appear in the Connect Universes dialogue box. In this case you can set Vista to broadcast ArtNet information without first establishing communication with the device. To do this:

1. Open the Connect Universes dialogue box.

2. Disconnect the universe(s) to be broadcast from any existing connection.

3. Tick the ArtNet Broadcasting checkbox. Vista now broadcasts Artnet for all universes that are not connected to any other output.

Setting up your fixtures

Once you've patched your fixtures you're ready to fire them up and start setting intensity, colour, position and so on.

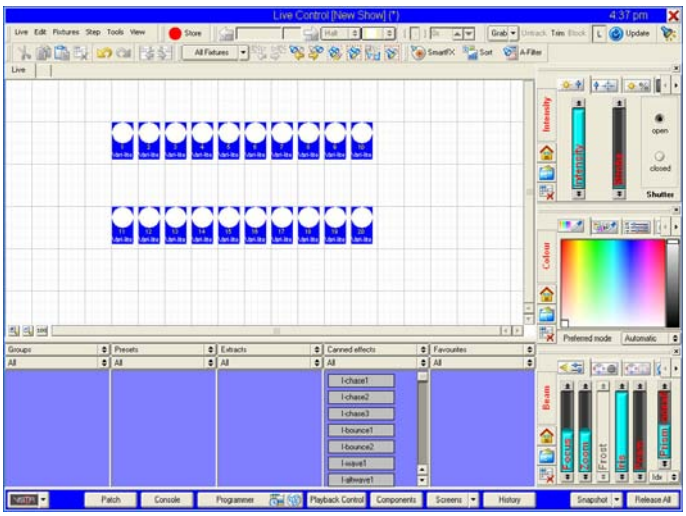
The Programmer – about the Live and Clip Tabs

Vista lets you control fixtures live from the programmer and also edit one or more clips at the same time. Whenever you open the Programmer you'll see a 'Live' tab at the top of the window: if you choose a Clip to edit it will open in its own tab. To switch between tabs just click on the tab you want to work on. For more information about editing clips and working with the Programmer tabs see *Working with clips* on page 56.

The Programmer - Fixtures screen

To get all your fixtures up and running you tap the Programmer button on the toolbar at the bottom of the screen. If this is the first time you've opened this window you should be in the Live tab, otherwise click on the Live tab to make it active.

Vista displays the Fixtures screen. This example shows a rig of ten Vari-lite 2000 Spots and ten 2000 Wash fixtures:



This screen consists of three main elements:

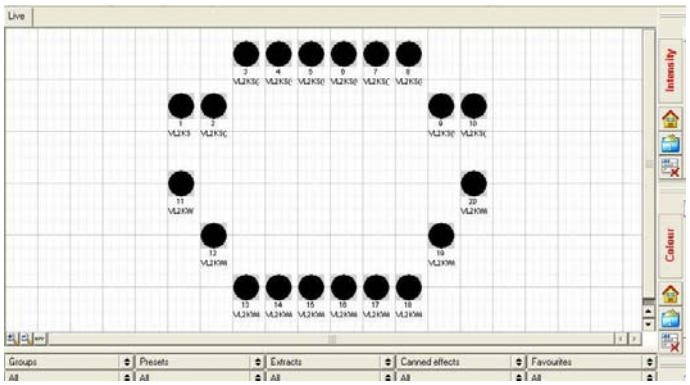
- the Top view panel, where you can display and arrange the fixtures to match the plan view of your lighting rig. This panel can also display the Timeline when editing a Clip.
- the Bottom view panel, where you can assign fixtures into meaningful groups
- the Intensity, Colour and Beam palettes, where you adjust the settings for each fixture.

You can also set the Bottom View panel to give you access to other components such as Presets, Effects, Clips and so on (this view is called the Quick Picker).

Arranging fixtures in a layout

Vista displays all of the fixtures you added on the Patch screen as icons on the Programmer Fixture screen. When you first view this screen, the fixtures are arranged in numerical order by Unique ID as a bank of icons, as shown in the example above.

If you want to, you can drag and drop the fixture icons around to new locations on the screen so that they match the layout of your lighting plan, as in this example:



Tip: You can undo a fixture move by right-clicking in the fixture window and selecting the 'Undo' option from the popup menu.

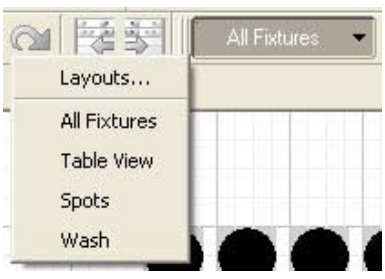
You can choose how Vista represents the fixtures from the Fixtures Arrangements option in the View menu:

This option…	**does this…**
Show Table	Displays the fixtures as 'cells' in numerical order in groups of 300.
Show Icons	Displays the Fixtures as icons.

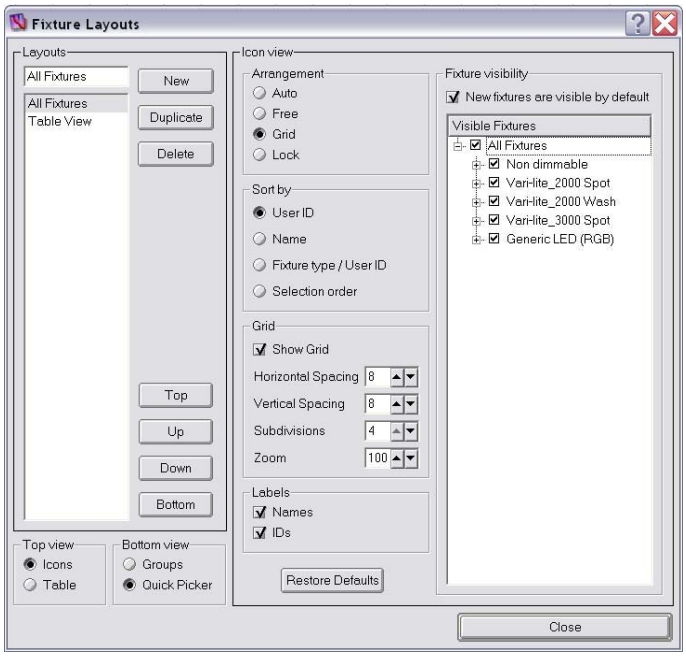
Using different layout views

You can create as many different views of your fixtures as you like, each sorted and arranged in its own away. To create or modify a view:

4. Click the Layout view selector on the toolbar and select the Layouts… option:



Vista opens the Fixture layouts window:



5. Click the New button to create a new layout or click the Duplicate button to create a copy of an existing layout:

6. Click in the Name field and type a name for the view.

7. Set the way the fixtures are represented in the layout:

This option…	**does this…**
Icons	Displays each fixture as an icon that displays Intensity, Colour, Position, etc (this is the default setting).
Table	Displays the fixtures as 'cells' in numerical order in groups of 300. Note that in this view you can't re-arrange the order or position of the fixtures, you can only assign attributes to them using the Palettes.

8. Set the options to determine how Vista displays and arranges the fixture icons:

This option…	**does this…**
Auto	Vista arranges the icons in numerical order by Unique ID number. This is the default setting.
Free	With this setting selected you can drag and drop icons anywhere on the Fixture panel.

This option…	does this…
Grid	With this setting selected you can drag and drop icons anywhere on the Fixture panel but when you let go, Vista automatically 'snaps' the icon to the nearest line of the layout grid.
Lock	Once you've got icons where you want them, choose this option to lock them in place so you don't move them by accident.
User ID	Sort the fixtures by ID number
Name	Sort the fixtures alphabetically by name
Type / User ID	Sort the fixtures by type name then ID number
Selection Order	Sort the fixtures into the order they have been selected
Show Grid	Tick this checkbox to display the layout grid.
Horizontal Spacing	Sets the amount of horizontal space (or padding) between fixture icons and the grid. Measured in pixels.
Vertical Spacing	Sets the amount of vertical space (or padding) between fixture icons and the grid. Measured in pixels.
Subdivisions	Sets the number of divisions within each cell of the main grid. Icons will snap to main or subdivision grid lines.
Zoom	Sets the zoom level of icons for this layout. 10% - 150%.
Names	Displays the Fixture name (type and number) below the icon.
IDs	Displays the Fixture unique ID below the icon.
Restore Defaults	Click this button to restore the icon settings to their default values.

Hiding and 'un-hiding' fixtures

You can hide any fixtures or fixture types in a layout. This removes them from the display, but not from the patch.

To hide a fixture:

1. Click the + symbol beside the All Fixtures heading in the Visible Fixtures column to show all the Fixtures types that you've patched.

2. To hide all Fixtures of a type, un-tick the checkbox beside that fixture type, or click the + symbol beside a fixture type to show all the individual Fixtures of that type.

3. To hide individual Fixtures of a type un-tick the checkbox beside the fixture(s) you want to hide.

To reveal (unhide) hidden fixtures, tick the checkbox beside the fixtures you want to reveal.

Duplicating, deleting arranging and activating layout views

To duplicate a layout view, choose the Layout name from the list and click the Duplicate button.

To Delete a layout view, choose the Layout name form the list and click the Delete button.

To arrange the order that layouts appear in the list, choose the Layout name from the list and click the Up, Down, Top or Bottom button.

To activate a layout view, click the Layout View selector on the toolbar and select the layout name you want to display.

Selecting what to display in the Bottom pane of a layout

The Fixture Layout window is divided into a Top and Bottom pane.

To set what Vista displays in the bottom pane, select the Groups or Quick Picker checkbox:

This option…	**does this…**
Groups	Vista displays Fixture Groups in the bottom pane. This is the default setting.
Quick Picker	With this setting selected, Vista divides the lower pane into columns that you can set to display Groups, Presets and other components.

To adjust the amount of space allocated to each pane, click on the divider bar and drag it up or down.

Adding labels to the layout window

You can add text boxes to the fixture window to help identify different fixture types or areas. To do this:

4. Right-click in the fixture window and select ‘Add annotation’ from the popup menu. Vista opens the Add annotation window.

5. Type a label and click the OK button.

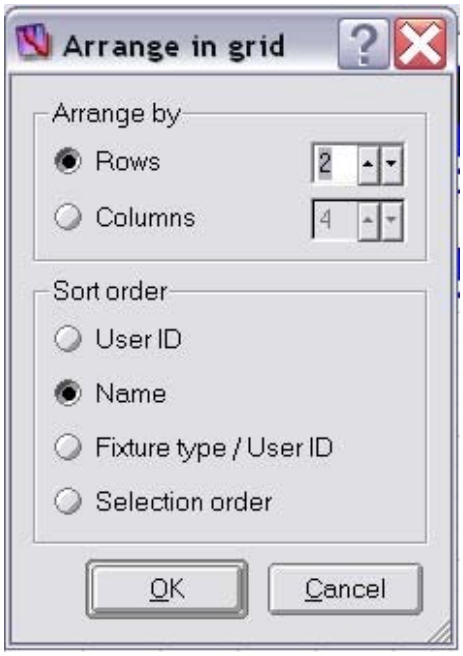
To move an annotation click on the text and drag it to a new location. To edit or delete an annotation by right-clicking on the text and selecting an option from the popup menu.

Arranging fixtures in a grid

You can arrange fixtures in rows and columns. To do this:

1. Select the fixtures you want to arrange into a grid

2. Right-click in the fixture window and select 'Arrange in grid…' from the popup menu. Vista opens the Arrange in Grid window:



This option…	does this…
Rows	Specify the number of rows you want in the grid.
Columns	Specify the number of columns you want in the grid.
User ID	Sort the fixtures by ID number
Name	Sort the fixtures alphabetically by name
Type / User ID	Sort the fixtures by type name then ID number
Selection Order	Sort the fixtures into the order they have been selected

3. Click the OK button to arrange the fixtures.

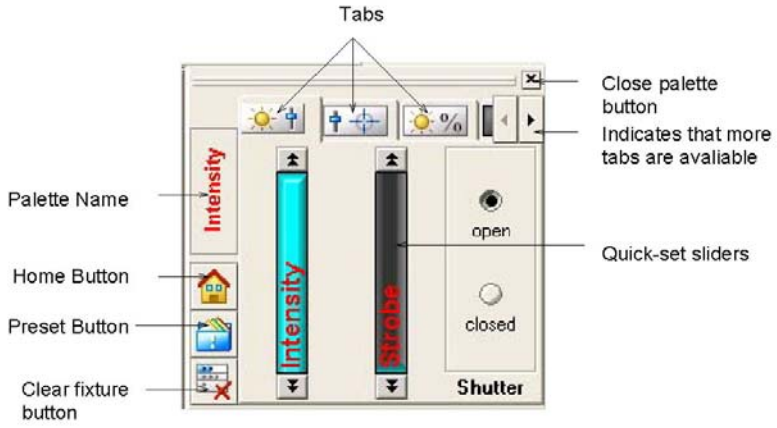
Using the intensity, colour and beam palettes

The Programmer screen usually has three 'palette' windows down the right-hand side. These palettes give you control of the main aspects of lighting fixtures: intensity & position, colour gobo and beam. All the palettes work in much the same way, so once you've mastered one of them, the others will be easy.

To set attributes for one or more fixtures, select the fixtures you want in the Fixture panel, then click on the Palette you want to use.

Common features of the palettes

This example shows the Intensity palette with a number of fixtures selected in the Fixture panel and the intensity set to 100%:



All three palettes have a few things in common:

This button…	does this…
	Tabs along the top that display the different control sets available in each palette. The arrow symbols to the right of the tabs indicate that there are more tabs available. Click the arrows to display them. While each Palette has different tabs, they all have a 'Raw DMX' tab that you can use to program attributes outside the control of the generic fixture model (see *About the generic fixture model* on page 1).
	Stop effects. Select a fixture(s) and click this icon to stop the effect. Only effects of the same type as the current panel (i.e. intensity or position) are affected
	The 'Home' button. Clicking this resets the selected fixtures to their default parameters *for that tab*. For instance, clicking this on the Intensity tab resets the fixtures' intensities to zero.
	The Components or 'favourites' button. Clicking this displays the Components window where you can select Presets, Extracts, etc. See *Creating presets*

This button…	does this…
	on page 50 for details.
	The Clear Fixture button. Clicking this removes all attributes *for that tab* that have been set for the selected fixtures.
	Close palette button. Clicking this removes the palette from the screen. To re-display a palette you've closed, choose it from the View:Control Panels menu.
	Slider bar, usually showing a percentage setting. This is a quick and easy way to set a non-precise value. To adjust it, either: • click the double-arrows at the top or bottom to go to 100% and 0% respectively • click and drag the blue bar to set the value you want • click above or below the top of the blue bar to increase or decrease it in small increments.
	Slider bar with editable value field. The value field provides a way to set precise values using the keyboard. To use the value field: • right-click on the slider and select the 'Display editable values' option • click in the value box and type a value using the keyboard.

Checking that everything is working

One of the first things you'll probably want to do after setting up your rig and patching it all in on the Patch screen, is check that everything's working. The quickest way to do this is to select the fixtures, one-by-one or in groups on the Fixture panel, and crank the intensity and colour up a bit.

To do this:

1. Select one or more fixtures in the Fixture panel.
2. Click anywhere in the colour rainbow on the colour palette.
3. Click the double-arrow icon at the top of the Intensity slider on the intensity palette. Vista instructs all the selected fixtures to show that colour at full intensity.

Tip: You can also use the encoder wheels to set Intensity, Position, Colour and any other parameter. See *The Programmer hardware controls* on page 47.

Tip: If you can't see any output from your fixtures check that the Grand Master is turned fully clockwise and that the faders on the Superplayback panel are up.

Highlight and Lowlight

When you are focusing or testing your fixtures you can use Highlight to bring up the intensity of each fixture automatically when you select it.

To do this, click the Highlight icon. The icon background changes to magenta to indicate that highlight is on.

You can alter how highlight works by updating the highlight and lowlight presets. See *The Highlight and Lowlight presets* on page 53.

Setting intensity and position

The Intensity palette controls fixture intensity and position. It has four tabs along the top:

- Intensity
- Position
- Intensity %
- Raw DMX.

Intensity

The default setting for the Intensity palette is the slider tab:

On this tab:

- the Intensity slider controls the intensity of the selected fixtures in a percentile range
- if the selected fixtures have a strobe capability, the Strobe slider controls the speed of the strobe
- if the selected fixtures have blackout shutters, the Opened and Closed buttons set the shutter position.

You'll notice that as you change the intensity settings, the icons on the Fixture panel change to reflect this.

Position

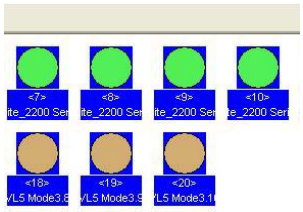
The Position tab gives you control of the direction in which the selected fixtures are aimed:

To adjust the position, either:

- click on the round target symbol and drag it to the spot you want
- use the slider bars along the X and Y axes to set a more precise position.

You'll notice that as you change the position settings, the icons on the Fixture panel change to reflect this, as these examples show:

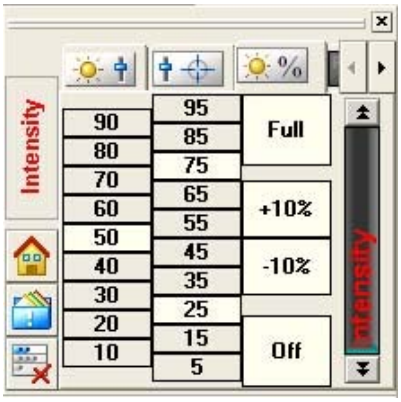
Before…



After…

Intensity by percentage

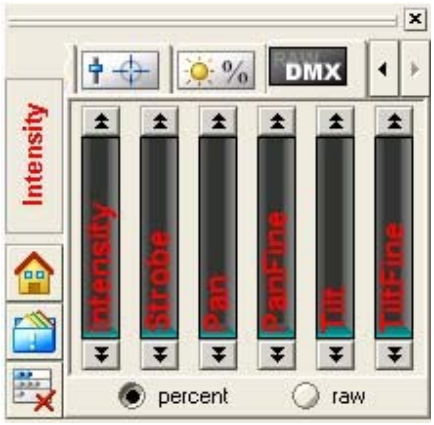
A more precise way to set intensity is with the second Intensity tab. This provides percentile bands in 5% increments:



Just click on the level you want to set it. To increase or decrease it in 10% increments, click the + or – 10% buttons. To set it to full or zero, click the Full or Off buttons respectively.

Setting raw DMX intensity and position values

The Raw DMX tab gives you fine control of all of the intensity and position attributes, but remember that any settings you make here are not recorded by the generic fixture model, so if you change the fixture you'll also have to re-program all these details.



Click the Percent button to set the sliders to a percentage, or the Raw DMX button to set the sliders to adjust actual DMX values from 1 to 255.

Setting colour

The Colour palette provides four tabs so you can choose the way you want to set your colours:

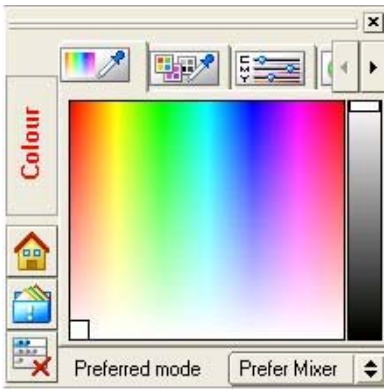
- HSV – hue and saturation values
- Lee – manufacturer gels swatchbook
- CMY – Cyan, Magenta, Yellow or Red, Green, Blue sliders
- Colour wheel – for fixtures that have colour wheels.

The Colour Palette also has a 'Preferred mode' drop down list at the bottom that contains three options:

- Automatic – when you pick a colour for a fixture that has both a colour wheel and a colour mixer, Vista uses the Colour Wheel for the Lee and Wheel Tabs and uses the Colour Mixer for the HSV and CMY tabs
- Prefer Fixed – select this when you want the HSV and CMY tabs to use the colour wheel – this may result in a near match colour.
- Prefer Mixer - select this when you want the Lee and Wheel tabs to use the Colour Mixer.

Hue and Saturation values

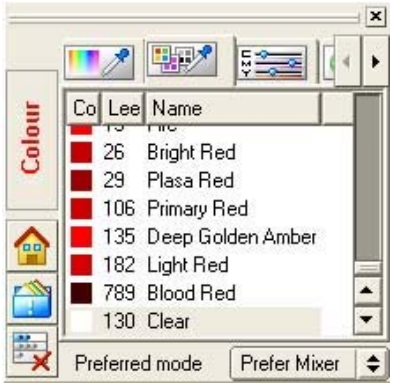
The HSV tab provides a colour spectrum and a saturation slider:



To pick a hue and its saturation, just click on the shade you want in the spectrum area, and drag the slider bar on the right hand side to set the saturation level.

Manufacturer gels

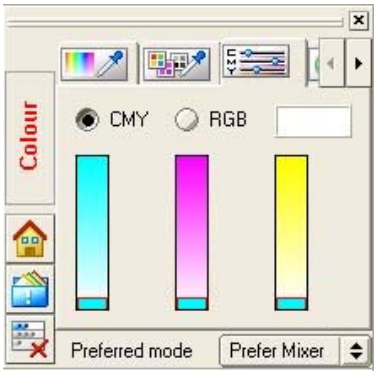
This tab provides the actual gel colours, numbers and names from the Lee swatchbook so you can pick the exact shade you want:



Click in the Colour, Lee or Name column headings to sort the list by name number or colour.

Cyan, Magenta and Yellow/Red, Green Blue

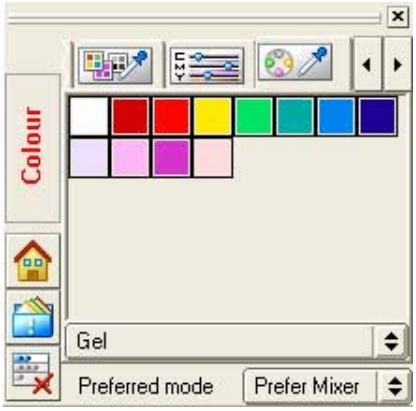
This tab gives you the option of setting your colour using either CMY or RGB values:



Click the relevant button to choose the method you want, then adjust the sliders to set the colour.

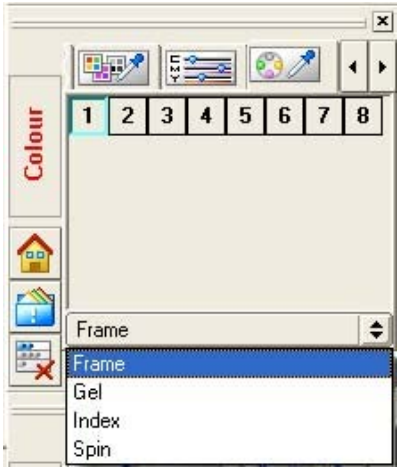
Colour wheel

When using fixtures with colour wheels, you can use this tab to set the precise colour on the wheel that you want this fixture to use:



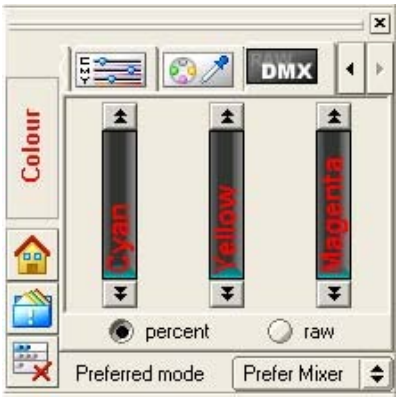
Just click on the colour swatch to select it.

You can also select by frame Number and set wheel spin by choosing from the drop down at the bottom of this tab:



Raw DMX colour

The raw DMX tab gives you control of the colour either as percentage CMY values or as actual DMX values from 1 to 255. Remember that any settings you make here are not recorded by the generic fixture model, so if you change the fixture you'll also have to re-program all these details:



Click the Percent button to set the sliders to a percentage, and the raw DMX button to set the sliders to adjust actual DMX values from 1 to 255.

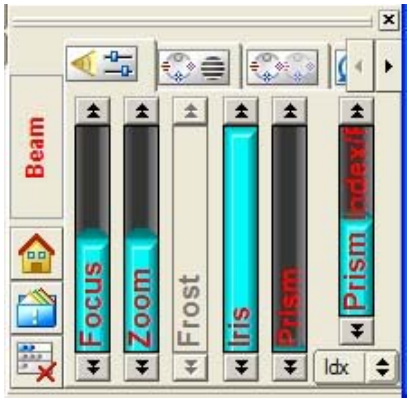
Setting beams and gobos

The Beam palette has six tabs for controlling beam and gobo attributes:

- Beam
- Gobo
- Gobo Wheels
- Rotation (< >)
- Framing
- Raw DMX.

Beam

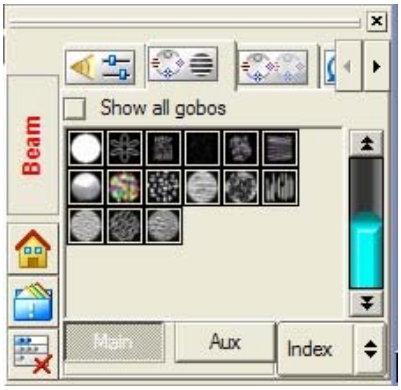
The Beam tab controls the focus, zoom, frost, iris and prism settings, including index and rotate, of the selected fixtures:



Use the sliders to adjust these values.

Gobos

The Gobo tab displays icons of the gobos available on the selected fixtures:



If you have only one type of fixture selected, the icons Vista displays represent all the gobo types of that fixture.

To choose a gobo, click on the icon representing the gobo shape you want. To display all the gobos, whether they are available on your fixtures or not, check the 'Show all gobos' checkbox.

If you have more than one type of fixture selected, Vista displays all the gobo types offered by *all* the fixtures. Note that just because the gobos are displayed doesn't mean they are available to all the fixtures.

Some fixtures have two gobo wheels. You use the Main and Aux buttons to set a gobo from one wheel and a second gobo from the other wheel. You can select any gobo as the main gobo and any gobo that is not on the same wheel as the Aux gobo.

If you select the Main button and choose a gobo, Vista updates the icons on the Fixture panel to reflect your choice. Now if you select the Aux button the gobos that are not available, because they are on the same wheel, have a white border around them, If you select one of the available icons Vista updates the icons on the Fixture panel to reflect your combined choice.

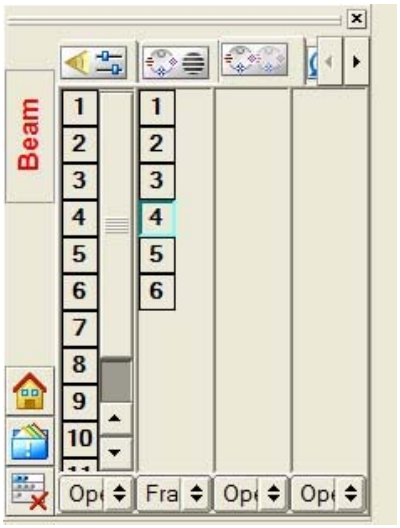
With some fixtures you can rotate the gobo you have selected. If your fixtures allow this you can use the slider to index (set a position) or rotate (continuously spin) one or both of the gobos. The options are:

- Index – move the slider to rotate the gobo wheel to the preferred gobo position
- Rotate – move the slider to rotate the gobo at different speeds.

Tip: Gobo information stored using the Main – Aux method is stored generically, so it is the better option if you are likely to swap fixture types. You can't set half-frame gobo positions or spin the wheel using this method.

Gobo Wheels

The Gobo Wheels tab provides a direct control method for fixtures that have up to four gobo wheels. You can use this tab to make gobo selections by their position on the wheel:



Choose the method you want to use to control the gobos from the drop-down menus at the bottom of each slider. The options are:

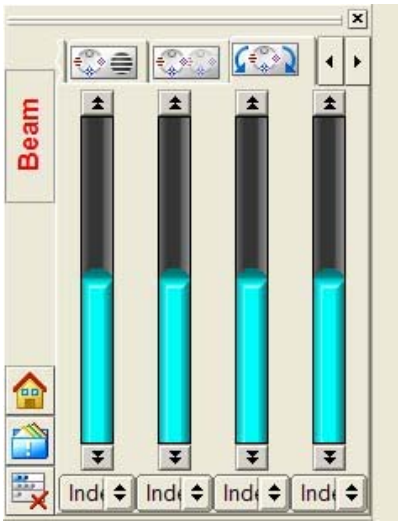
- Open – sets the gobo wheel to the open position
- Frame – set the frame number of the gobo on the fixture's gobo wheel (position 1 is usually 'open')
- Index – choose by moving the slider to rotate the gobo wheel to the preferred gobo position
- Spin – set the gobo wheel to rotate through its frames.
- Gobo – set the gobo by choosing from the images shown in wheel order.

If you choose the 'Spin' option, Vista sets the slider to halfway, representing 'zero'. Increasing the slider to a positive value starts the gobo wheel spinning in the direction from frame 1 upwards. The further you push the slider the faster it spins.

Dragging the slider down starts the gobo wheel spinning backwards from its highest frame number to its lowest. Again, the further you drag the slider, the faster the gobo wheel spins.

Rotation (< >)

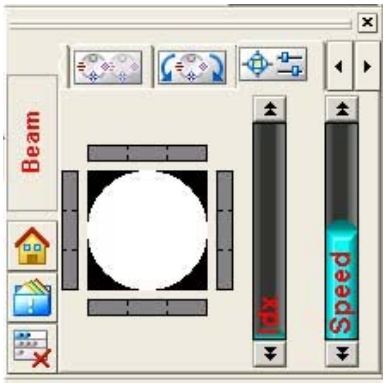
The Rotation tab controls the angle or rotation of rotating gobos:



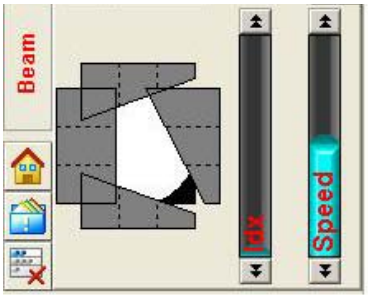
You can set these values by Index or Rotation. The Rotation slider works in the same way as on the Spin slider on the Gobo Wheels tab.

Framing

The Framing tab is specifically for fixtures that have beam shaping frames, so you can shutter-off parts of the beam:



To set the positions you want the frames to be in on the selected fixtures, click and drag each frame to the position you want, as shown in this example:



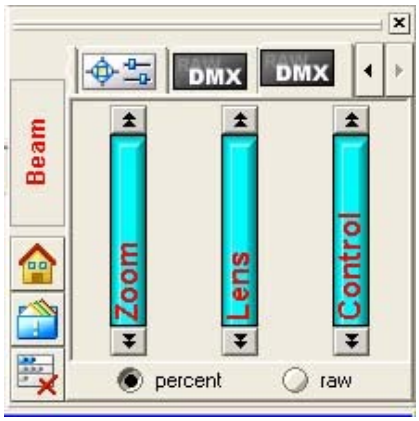
You can also set the rotation angle of the shape or continuously rotate the whole shape using the slider.

Choose the method you want to use to control the framing from the drop-down menus at the bottom of the slider. The options are:

- Index – choose by moving the slider to rotate the framing shutters to the preferred angle
- Spin – set the whole shutter assembly to rotate.

Raw DMX

The Raw DMX tab gives you control of the gobo settings either as percentage CMY values or as actual DMX values from 1 to 255. Remember that any settings you make here are not recorded by the generic fixture model, so if you change the fixture you'll also have to re-program all these details:

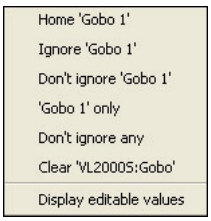


Using transparent raw parameters

The Vista's generic fixture model provides many benefits including the ability to swap fixtures without having to re-programme. A consequence of this is that parameters are always stored in logical groups (position, colour, gobo, beam etc) and it is not possible to store individual parameters from within these groups. On occasions this can be inconvenient, especially for devices with large channel counts such as media servers.

For this situation, Vista provides a method to store just a single parameter or a number of parameters from within a group. To store parameters this way:

1. Click on any of the raw-dmx tabs.
2. Set the individual parameter as required.
3. Right-click on the slider for that parameter to open a popup menu:



This option…	does this…
Home	Sets the parameter to its default value.
Ignore …	Sets the channel so it will not be stored.
Don't ignore …	Sets the channel so it will be stored.
… only	Sets the channel so it will be stored and all others so they won't be stored.
Don't ignore any	Sets all channels to be stored.
Clear …	Clears any value set for the selected channel.

Tip: You can use these options in combination; for example, to store say two parameters of many you would set the first parameter to … only and the following one to Don't ignore…

Note that as with any Raw-DMX settings this programming is not transferable to another fixture type.

The Programmer hardware controls

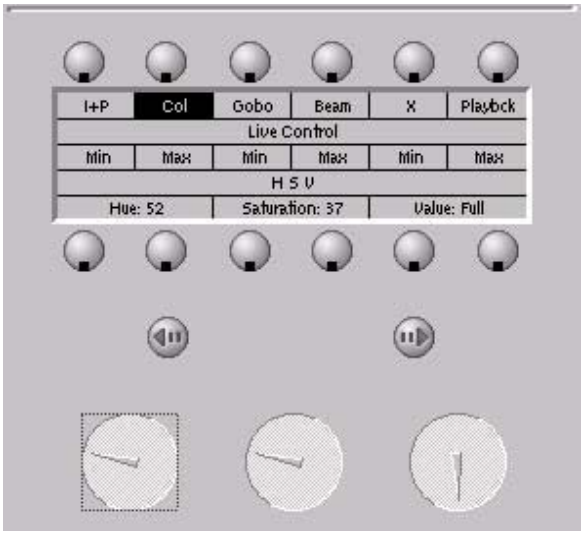
With the encoder wheels and associated LCD and buttons on the Vista consoles you can make more exact adjustments than the on-screen palettes. During programming you can use them to adjust setting for Intensity, Position, Colour, Gobo and Miscellaneous parameters

Programmer intensity

The overall intensity from the Programmer is controlled by the fader located, on the left side, below the encoder wheels.

Programmer mode

If the controls are not already in Programming mode press the button labelled 'Playback' to toggle the controls from Playback to programmer mode:



This button…	does this…
I + P	Press this button to put the encoders and lower 6 buttons in Intensity plus Position mode. Pressing it again cycles the controls through any available parameters or alternate modes (Angular position and Strobe & Shutter). Hold the red modifier (or the shift key) and click to cycle the controls in reverse.
Col	Press this button to put the encoders and lower 6 buttons in Colour mode (HSV). Pressing it again cycles the controls through any available parameters or alternate modes (CMY, RGB, Frame / Index and Colour swatch). Hold the red modifier (or the shift key) and click to cycle the controls in reverse.
Gobo	Press this button to put the encoders and lower 6 buttons in Gobo mode. Pressing it again cycles the controls through any available parameters or alternate modes. Hold the red modifier (or the shift key) and click to cycle the controls in reverse.
Beam	Press this button to put the encoders and lower 6 buttons in Beam mode. Pressing it again cycles the controls through any available parameters or alternate modes. Hold the red modifier (or the shift key) and click to cycle the controls in reverse.
X	Press this button to put the encoders and lower 6 buttons in Miscellaneous mode. Pressing it again cycles the controls through any available parameters or alternate modes. Hold the red modifier (or the shift key) and click to cycle the controls in reverse.
Min	Sets the associated parameter to it's minimum values. I.E. would set Intensity to 0. Press Min and Max together to set the parameter to it's mid value. See tip
Max	Sets the associated parameter to it's maximum values. I.E. would set Intensity to 100
Encoders	Rotate to set the associated parameter to the required value.
<- Left arrow	Selects the previous Fixture
-> Right arrow	Selects the next fixture

Tip: In the console window, if you hold any modifier (Ctrl, Shift Alt) and press a max or min button it will toggle on for 2 seconds. When working on a PC this allows you to then press the associated button to set a mid value.

Tip: In the console window, if you hold any modifier (Ctrl, Shift Alt) and press a max or min button it will toggle on for 2 seconds. When working on a PC this allows you to then press the associated button to set a mid value.

Assigning fixtures to groups

If you have a big rig, the last thing you want to do is manipulate dozens of individual fixtures. To make it easy to control all the fixtures in your rig you can assign them to groups.

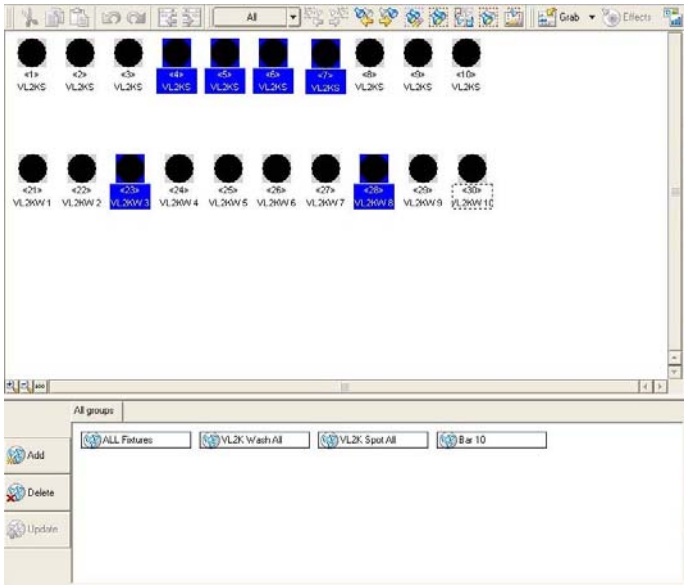
A group can consist of any number of any type of fixtures; it's entirely up to you what you put in a group. Some typical groups might be all the fixtures of one type, all the fixtures on the back truss, or all the fixtures you're using on one particular part of the stage.

Creating groups

When you are first creating groups it's easier to be in a layout that shows the Groups panel at the bottom of the screen. If you're seeing the Quick Picker instead of the Groups panel at the bottom of the screen, right-click in the Fixture pane and select 'Layout Properties', then in the Fixture Layouts window select the Groups option for the bottom view.

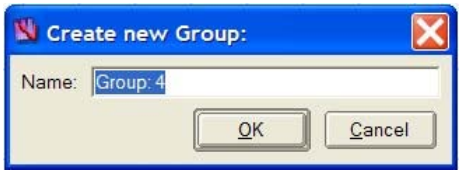
To create a group:

1. Select the fixtures you want in the group:



2. Click the Add Group button on the left hand side of the Group panel:

Vista opens the Create New Group window:



3. Type a name for the Group and click OK or press Enter. If you don't want to name the Group right away you can accept the suggested name and rename it later.

There are two mode buttons on the left side of the Group pane. In Apply mode when you click this group icon, Vista automatically selects all the fixtures in it. You can then assign attributes to all the fixtures in that group using the palettes. You use the Edit mode when organizing groups as described below.

You can create as many groups as you want, and you can also create any number of 'groups of groups'.

Organising groups

At the top of the Group panel there is a tab called 'All Groups' that contains all the groups you have created.

To add another tab, right-click in the area to the right of the existing tab and choose the Add tab option. This creates a new tab along the top of the Group panel. To rename the tab, click on it and enter a title.

In Edit mode you can drag and drop groups from the All groups tab to other tabs so you can arrange your groups in a meaningful way. You can also drag groups into different columns or positions.

Fanning

To fan a selection of fixtures:

1. Select the fixtures in the Programmer Fixture window.
2. Select the palette whose attribute you want to fan (e.g. colour, position).
3. Hold down the yellow modifier button on the console (Ctrl key on the PC version).
4. Click and drag on the attribute window or roll any of the encoder-sets on the console to fan the selected fixtures.

Creating presets

Presets are the 'building blocks' that you use to create clips. They represent common sets of attributes that you know you're going to want to use over and over again, such as a particular position (e.g. on the drummer).

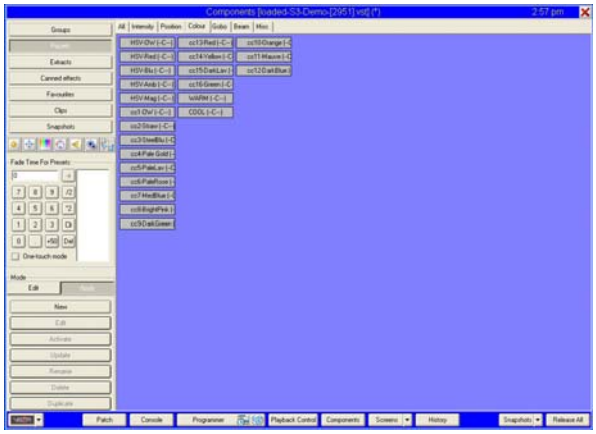
You use the Components button on each of the palettes to create preset values for the main fixture attributes of intensity, position, colour, gobo and beam. This is a useful way to create pre-defined values that you can assign quickly to any number of fixtures without having to adjust the settings individually for each one.

To create a preset:

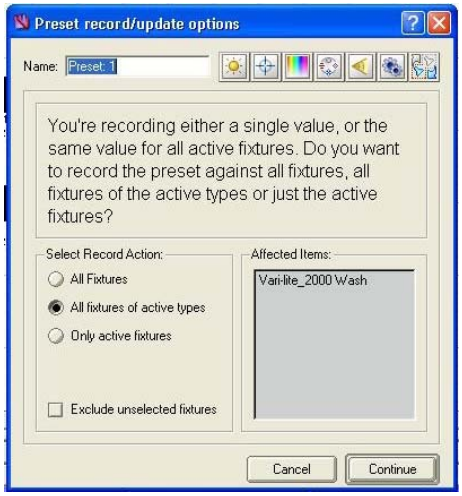
1. Set the values on the palette the way you want them.

2. Click the component button on that palette:

   Vista displays the Components window:



3. Click the New button to display the Preset mode window:


Preset record/update options
Name:
Preset: 1
You're recording either a single value, or the same value for all active fixtures. Do you want to record the preset against all fixtures, all fixtures of the active types or just the active fixtures?
Select Record Action:
All Fixtures
All fixtures of active types
Only active fixtures
Exclude unselected fixtures
Affected Items:
Vari-lite_2000 Wash
Cancel
Continue

4. Enter a name for the preset in the Name: box

5. Use the filter bar (as described below) to select or deselect the features you want to include in the preset.

6. Click one of the buttons to choose whether you want this preset to apply to all the fixtures in your rig, all the fixtures of the type you've currently selected, or only those fixtures currently selected.

7. Click the Continue button. Vista creates a new Preset icon in the window that contains all the attributes you defined on that palette.

Tip: Presets are normally *per-palette*, i.e. you create separate presets for intensity, colour, gobo and beam (and miscellaneous parameters). The filters on the palette screen determine which types of presets Vista displays at any time:

Each button represents a type of preset parameter:

	Intensity
	Position
	Colour
	Gobo
	Beam
	Miscellaneous (i.e. parameters that don't fit in the above groups).

Note that the filters apply when storing and when recalling a preset. This means that whatever attributes are masked when you store the preset are excluded from it, and whatever attributes are masked when you recall it are not applied.

Updating presets

You can use the Programmer to update the information stored in a preset.

To do this:

1. While a editing the clip, select the fixtures you want to change or add to the preset.
2. Make the adjustments you want using the palettes.
3. Open the Components window, select the preset and click the Update button. You can also Right-Click the preset in the Quick Picker and select Update from the popup menu.
4. Vista displays the Preset Record/Update options.

Tip: You can also update Presets when you Update a clip, that's being played back. See *Update Presets and Clips during playback* on *page 93*

Editing presets

You can use the Programmer to add, remove or change information stored in a preset. There are two ways to open a preset for editing:

- in the Components window you can select the Preset and click on the Edit button
- in the Components window you can select the Preset, Quick Picker and select Edit from the pen pop-up (right-click).

Once the Preset is open in the Programmer you can make changes in the same way as you do when editing a Clip:

- select fixtures in the Fixture Chooser window and add, remove or change settings using the palettes or encoders, or
- select fixtures or Event bars in the Timeline window add, remove or change settings using the palettes or encoders.

To save changes to a Preset, choose the Save Clip option from the Clip menu.

Tip: When you are editing a Preset you can switch between the Fixture view and Timeline view by either clicking on the Programmer button icons or selecting Timeline or Fixture chooser from the View menu.

The Highlight and Lowlight presets

There are two special presets, Highlight and Lowlight, that set the behaviour of fixtures when Highlight mode is on.

- when you select a fixture it goes to the Highlight preset
- when you deselect a fixture it goes to the Lowlight preset.

To edit either of these presets you do this:

5. Set the fixture(s) Intensity, Position, Colour, beam etc.
6. Select the 'Highlight…' option from the Tools menu.
7. Select Update Highlight or Lowlight preset to save the settings.

Organising Components

At the top of the Components window there are several tabs called 'All, Intensity, Position, Colour etc'. The All tab contains all the presets you have created. Vista also automatically adds Presets to any tab that corresponds to the parameters stored in the preset. For example, if you create a Position preset it appears in the All and Position tabs.

To add another tab, right-click in the area to the right of the existing tab and choose the Add tab option. This creates a new tab along the top of the Components window. To rename the tab, click on it and enter a title.

There are two mode buttons on the left side of the Components window. In Apply mode, clicking on a preset or other component immediately selects and activates it. In Edit mode you can click on a component, to rename or move it, without it activating.

In Edit mode you can drag and drop components from the All tab to other tabs so you can arrange your components in a meaningful way. You can also drag items into different columns or positions.

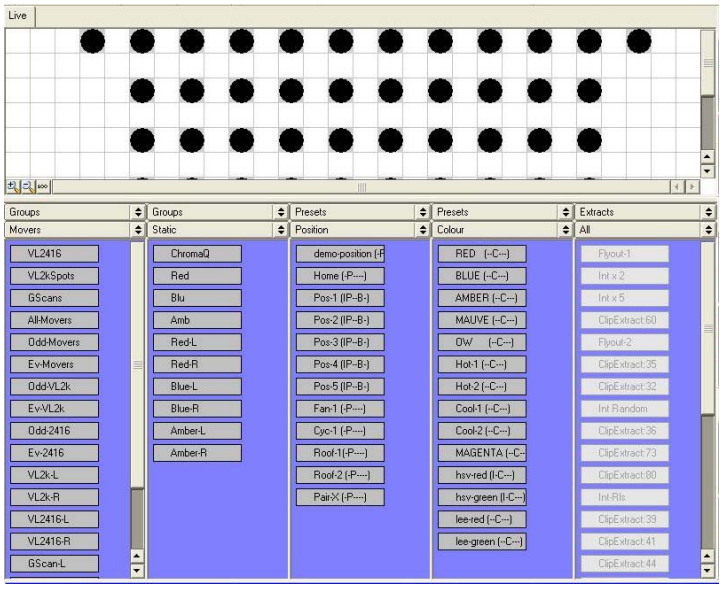
You use this same screen when working with extracts. See *Creating and applying extracts* on page 88 for details.

Using the Programmer Quick Picker

You can set the lower panel of the Programmer to show either Groups or the Quick Picker. The Quick Picker provides an easy way to select any of the following items you've created:

- Presets
- Groups
- Extracts
- Clips.

To use the Quick Picker, switch to a Layout that has the Quick Picker option selected:



This screen has five columns whose contents you can set by choosing an option from the drop-down menu at the top of each column. Once you've chosen the type of information you want the column to display, you can also select what page you want to display within that column using the second drop-down menu.

Presets labels

When you select some fixtures, the preset labels change to indicate which are available:

There are four other buttons on the toolbar at the top of the screen:

This label…	indicates this…
	A light grey background indicates that this preset does not have any settings stored for the selected fixtures.
	A dark grey background with a broken border indicates that this preset has settings for some of the selected fixtures.
	A dark grey background with a solid border indicates that this preset has settings for all of the selected fixtures.

Working with clips

Once you've set up your patch, arranged your fixtures, assigned them to groups, and created the presets you want, you're ready to create a *clip*.

This is where the Vista differs in a big way from traditional keypad-controlled lighting consoles, because instead of telling it what you want by entering strings of numbers, you do it all visually, on a large screen using the pen or mouse and the hardware controls.

About the timeline

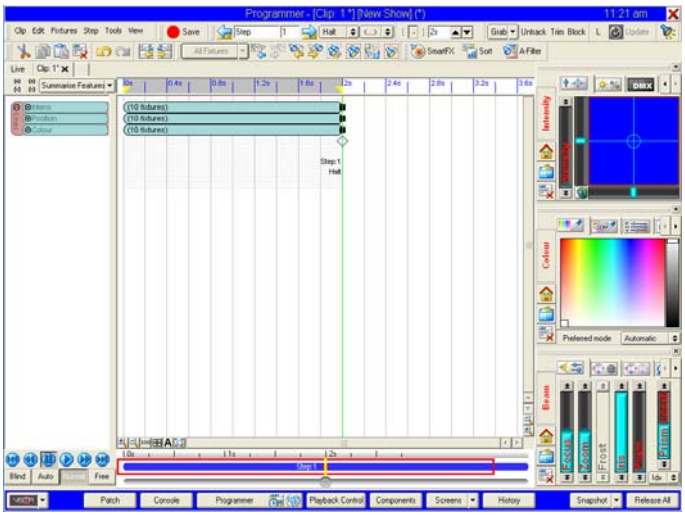
The Vista uses a 'timeline' concept that will be familiar to you if you've seen the sound or video editing software now available for computers. A group of events strung together along the timeline is called a *clip*.

The idea is simple: you create a series of lighting 'events' that occur in sequence when you hit the 'Play' button. With the Vista you can move back and forth through this piece of time and edit any aspect of the events that occur, in much the same way as you could drag a tape back and forth across the play head of an analogue tape deck.

If you have the Programmer open and you are working in the Live tab you've probably already selected some lights, given them Intensity, Colour and so on. To create a Clip using this look as a starting point you do one of the following:

- choose the Export to New Clip option from the Live menu.
- hold down the Yellow (Ctrl on a PC) modifier button on the console and press the Select button on an empty playback.
- choose the 'Store live' option from the Live menu (or use the keyboard shortcut Shift + Enter) to open the 'Store Live' window. With this method you can append, merge or insert new information to an existing clip and offers several advanced options *Storing from the Live tab to another Clip* on page 72 for details).
- if you want to start a new clip from scratch, choose the New Blank Clip option from the Live menu or click on the mini-tab at the right hand end of the tab bar.

Whichever method you choose, Vista creates a new Clip tab and displays the Programmer window:



This screen is where you create the events that make up the components of your lightshow.

Tip: Once you are editing a Clip you can switch between the Fixture view and Timeline view by either clicking on the Programmer button icons or selecting Timeline or Fixture chooser from the View menu.

Clip tabs

When you first open the Programmer you'll see the Live tab and a mini-tab above the timeline window. If you export to a clip or open a blank clip, Vista adds a new tab labelled with the clip name.

Click on the tab for the Clip you want to work on. When you select a Clip tab any fixture settings coming from the Live tab are turned off (made blind). This way it's easier to see what's in a Clip without settings from the Live tab being combined and shown on stage.

If you prefer not to turn off the Live tab output automatically, select the User Preferences option from the Vista menu and set the Programmer, *Auto-Blind Live* tab preference to Off. You can also turn on the Live tab output, while you working on a Clip by clicking on the [L] icon beside the Update icon.

To close a Clip tab, choose 'Close Clip' from the Clip menu or click the close icon (X) on the clip tab.

The clip tab popup menu

You can open, close and blind clips using the tab popup window. To do this, right-click on the clip tab and the action you want from the popup menu.

This option…	**does this…**
New Clip	Opens a new clip tab

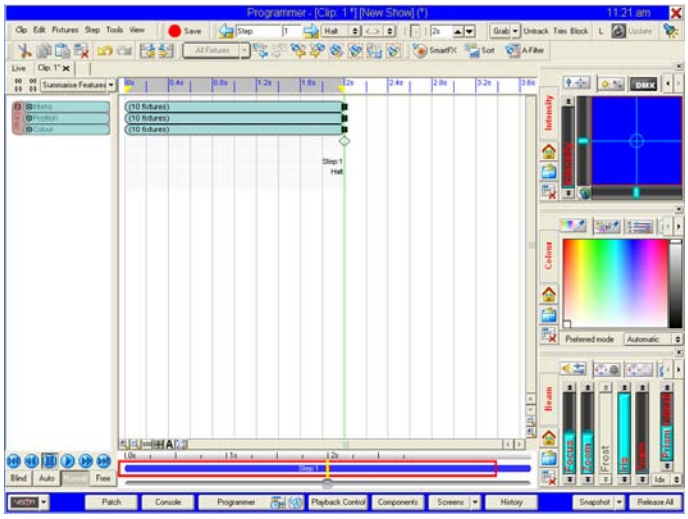
This option…	does this…
Save	Saves the clip
Save as	Saves a copy of the clip with a new name
Close	Closes the clip
Close all other clips	Closes all other clips
Blind	Blinds (hides) the output from the clip
Blind other clips	Blinds all other clips

Tip: If you hover the cursor over a clip tab, Vista displays a tooltip showing the modification state of the clip and the playback mode.

Event bars

The horizontal bars represent events. These are the commands Vista is sending to the fixtures you've connected on your Patch screen and configured on the Fixture screen.

The event bars represent the activities of those fixtures over time. As you can see in this example, the bars go from the '0s' point on the timeline scale to the '2s' point. This means that these fixtures are moving to a new setting over two seconds:



The settings you've applied to these fixtures on the palettes (e.g. intensity, colour and position) control the fixtures themselves. The timeline simply tells those fixtures to accept those commands, *and the event bar represents the length of time it will take those fixtures to get to the desired state.*

Once the fixtures get to that state they will stay like that until they receive another command telling them to do something else (e.g. switch off).

In short, by placing the event bars where you want them on the timeline you're giving commands to those fixtures that tell them how long a parameter will take to fade in. *The parameter is determined by the palettes; the timeline only controls when the fade starts and ends.*

Using the summary views

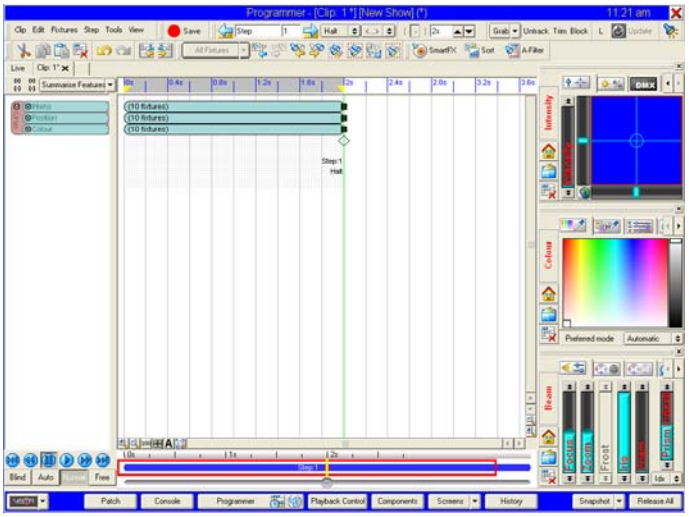
You can view the details of the fixtures in the clip in several ways:

- summarised by feature, i.e. intensity, position and colour
- summarised by fixture type
- all events
- filtered events – Intensity, Position, Colour etc

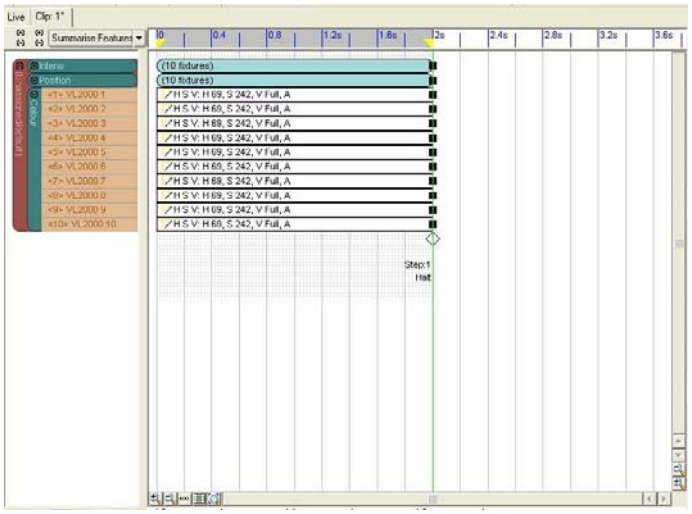
You choose these views from the Summary View drop-down menu in the top-left corner of the screen. You can also switch between the minimised/maximized setting of each summary view using the + and – buttons beside the drop-down menu.

Summary by feature

This view shows a set of fixtures by their three attributes:

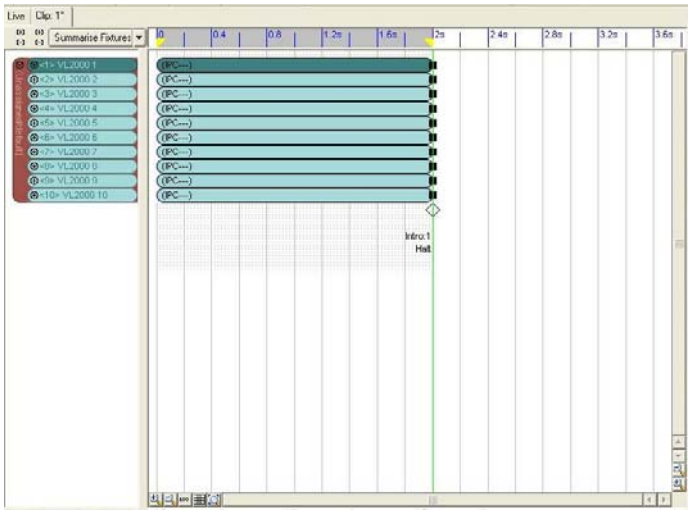


By default, the view shows each bar minimised. To expand each attribute and see the details, click the '+' symbol beside the attribute name (e.g. 'colour'). Vista displays the details of that attribute:



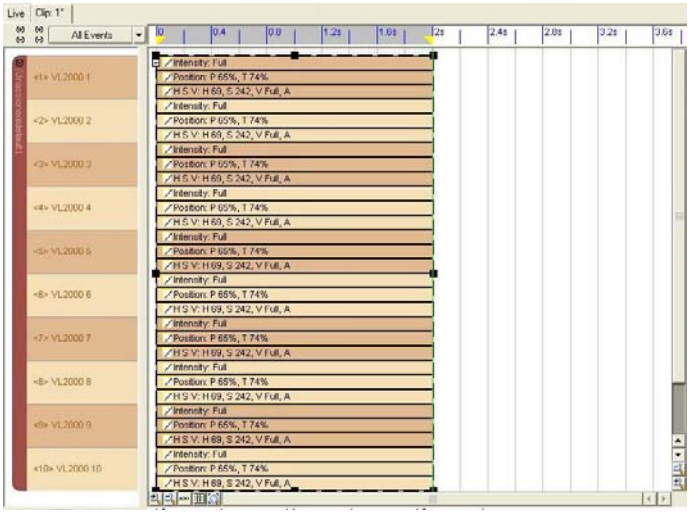
Summary by fixture type

The fixture type view shows the same information but sorted by fixture rather than attribute:



All Events

The All Events view shows all the details of each fixture:



This view is useful when you want to know exactly what you have in your clip, but it shows so much information that you will usually have to use the scroll bar on the right-hand side of the window to view it all.

Filtering the All Events view

As well as displaying All Events, you can also choose to filter out different classes of information on the timeline. To do this, choose an option from the list below the line in the View drop-down menu:

When you choose a filter, Vista displays only those types of events.

You can also create your own filters to show only those combinations of events you want to see. To create a filter:

1. Choose the 'Custom Filter' option from the menu. Vista displays the Define Filter window:

2. Click the 'New' button.

3. Check the buttons for the classes or types of events you want Vista to display.

4. Type a name for the filter.

5. Click the 'Close' button. Vista adds this filter to the drop-down filter list.

If you want to delete a filter, select it from the list on the Define Filter window and click the Delete button.

Playing and moving around a clip

At the bottom of the timeline screen there is a set of controls and a navigator bar that shows where you are in time within a clip:

The buttons on the left work just like the controls on a CD or DVD player:

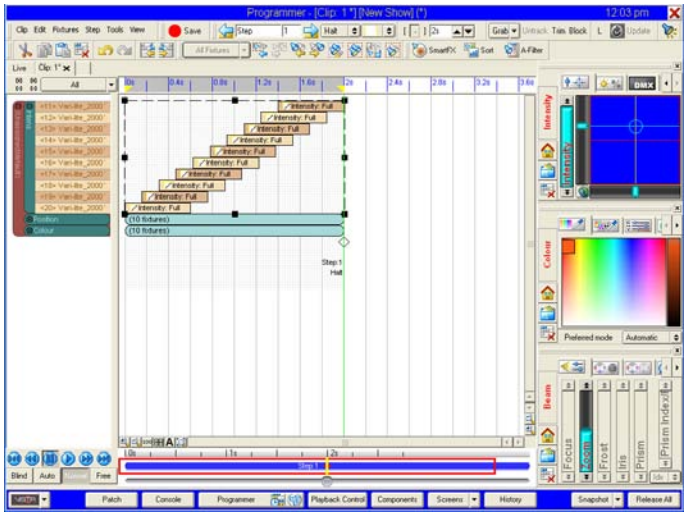
This button…	does this...
	Jumps to the start of the timeline.
	Steps backwards to the previous Step on the timeline.
	Pauses playback.
	Starts playback of the clip.

This button…	does this...
	Steps forwards to the next Step on the timeline.
	Jumps to the end of the timeline.
	Cuts the DMX output so that you can make changes on the console without triggering any fixtures on the stage. In Blind mode the fixture icons don't show the changes you make.
	With Auto selected, the Clip automatically goes blind when you select any tab other than the Clip tab.
	With the Free button selected you can make changes to an event anywhere on the timeline without playback automatically jumping to that position. This mode is automatically selected if you open and edit a Clip that is currently active (being played back) and is useful if you want to make changes to something that is about to be played back. In free mode the fixture icons don't show the changes you make.
	In normal mode the programmer output follows event selections. So if you open a Clip and click on an event in step 2 you'll see the Green playhead line jump to that point and the lights will change accordingly. This is the normal mode while programming.

The progress indicator

When you hit Play, the yellow line on the navigator bar starts moving from left to right across the timeline. This line shows where you are up to in this clip. If you hit Pause, the line stops wherever it is on the timeline; if you hit Play it starts from the same spot.

The yellow indicator line has a green line attached to it that runs across the event bars in the timeline itself to show you where you're up to. The green line is there so you can make precise timing adjustments:



Depending on the level of zoom you have selected, the green indicator bar may appear to be 'out of sync' with the yellow progress bar.

Zooming in and out

The red focus box in the timeline navigator bar (beneath the timescale) shows the current zoom level:

To focus on a particular section of the timeline, put the pen on this area and drag over the section you want. Vista re-draws the red box to show the area you selected, and updates the information on the timeline to show that area.

You can also adjust the focus box using the icons on the horizontal scroll bar just above the progress indicator:

This icon…	does this…
	zooms in on the area selected by the focus box.
	zooms out, increasing the length of the focus box.
100	zooms to the normal scale - about 2 seconds visible.
	zooms to fit the selected objects.
A	Zooms to the 'Active' region of the current step. This region shows all event in the step but excludes blank areas at the start or end of the step

This icon…	does this…
	zooms to fit the entire clip in the window.

Tip: On the View menu you can also choose Fit-to-step, which re-sizes the screen to the width of the current step.

Creating clips

You can create any number of clips, each of which can consist of any number of individual lighting events. You can then combine these clips and 'play' them interactively to produce your overall lightshow.

For instance, you might create a clip that includes a peel off from the edges of the stage with all the fixtures changing colour as they peel and ending up focused on the centre of the stage. The whole thing might take five seconds from start to finish. You'd achieve this by creating a series of events, each of which handles one element of the overall effect.

When you trigger this clip from the console, the Vista plays through all of the events in the sequence you've arranged them in on the timeline. If you decide that part of the peel goes too quickly, you can go straight into the timeline and extend the time allocated to that event. All aspects of the clip can be changed, adjusted, manipulated on the timeline until you have it all the way you want it. Each time you make a change you can either play the clip again to see the result, or just drag the progress indicator bar from left to right to 'step' through the events.

Note that the timeline shows events as a passage of time, and the fixtures will only achieve their final state at the point represented by end of the event bar. For example, if your event is a fade-in from 0% to 100%, the fixtures will only reach 100% intensity at the end of the event bar.

Adding events to the timeline

To add one or more fixtures to the timeline:

1. Click the icon on the toolbar Programmer button to display the Fixtures window.

2. Choose the fixtures you want (or select a group of fixtures from the Group box).

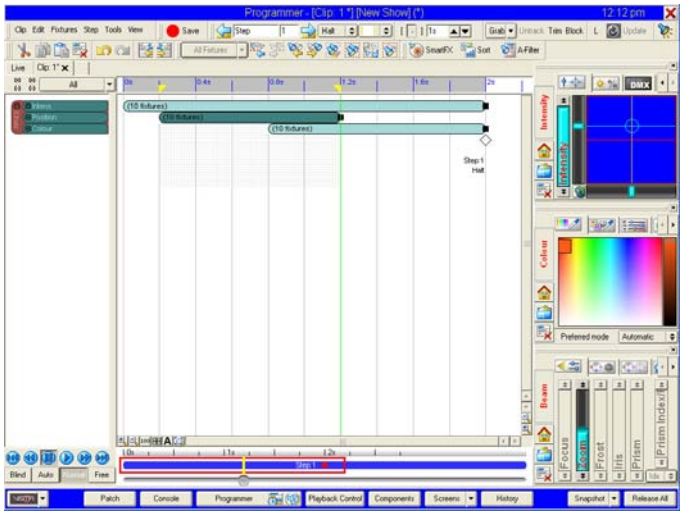
3. On the Intensity palette, turn up their intensity to a level above zero. You can also set any of the other attributes on the other palettes at this point if you like.

4. Tap the Timeline icon on the Programmer button on the toolbar at the bottom of the screen. Vista displays the timeline window with the fixtures you just chose selected.

These fixtures are now part of an event on the timeline.

Moving events around

Each event has three attributes: a start point, duration and a finish point. The event bars on the timeline show you where each event starts and finishes and how long it will take to reach its end point:



To adjust the start or end point of an event, select the event and drag it along the timeline to the left or right. Note that the grid has an automatic 'snap-to' feature that makes it easy to align start and end points.

To change the duration of an event, select the black square on the right-hand end and drag it left to shorten the event, or right to lengthen it.

Note that in the example shown above three separate attributes of the event have different timings:

- the Intensity event starts at 0s and is complete at 2.2s
- the Position event starts at 0s and is complete by 1.2s
- the Iris event starts at 0.2s and is complete at 2.2s.

Using the modifiers to move events and step markers

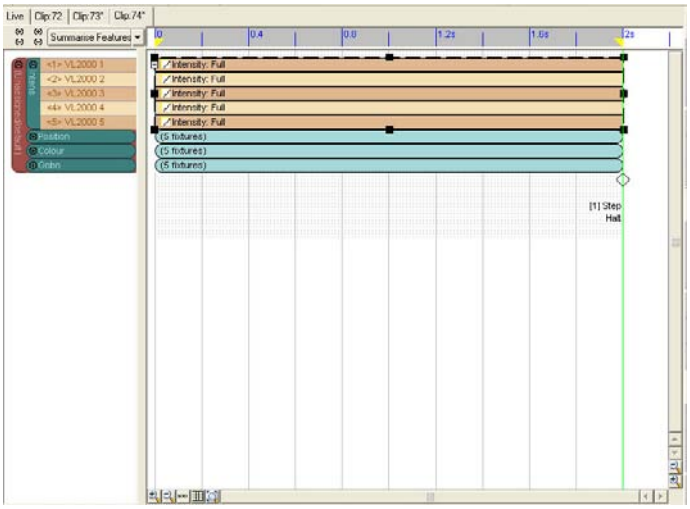
Normally you can only move events within the bounds of the step they are in (see *Working with steps* on Page 75)

To move an event across a Step marker, hold down the Green modifier key (Alt on a PC).

If you drag an event across the last step of a clip Vista automatically creates a new last step to accommodate the event. You can also reduce or increase the size of a step and scale all events within it by holding the Yellow modifier (Ctrl on a PC) while moving the Step marker.

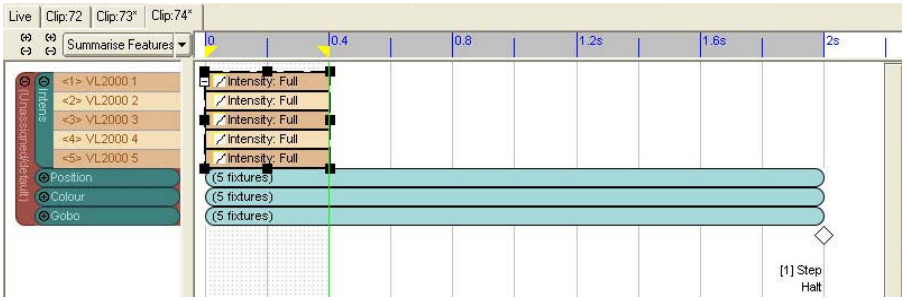
Working with selection handles

A quick and easy way to create dynamic lighting effects is to 'skew' the events on the timeline. When you select a group of events, Vista displays a dashed selection box around them with black squares on the corners and sides known as 'handles':

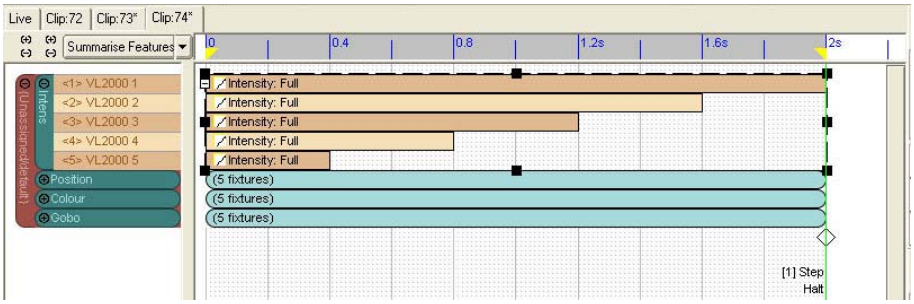


You use these handles to change the duration of the selected events. In this example, the Intensity events of a set of fixtures are selected. By selecting a handle and dragging it you can change the start or finish point of the selected events as shown below.

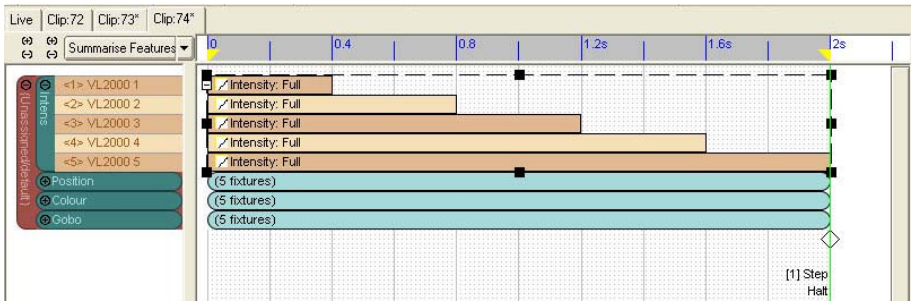
The fixtures will now fade in over 400ms:



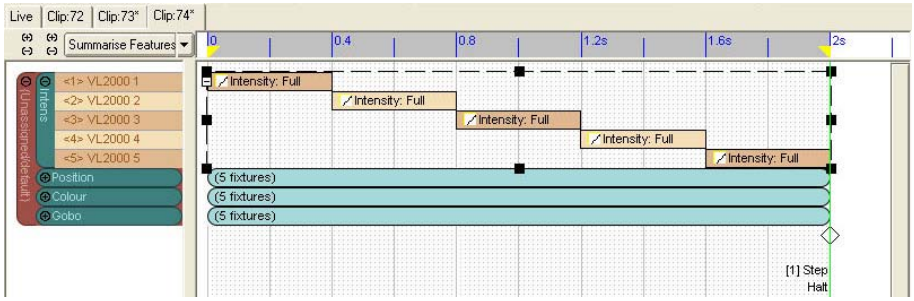
In the example below, we've selected the top right handle of the selection and dragged it right to step the end fade times over the 2 seconds. This has offset the end fade time so the first fixture takes the full 2 seconds to fade in and the last fixture takes the original time of 400 milliseconds:



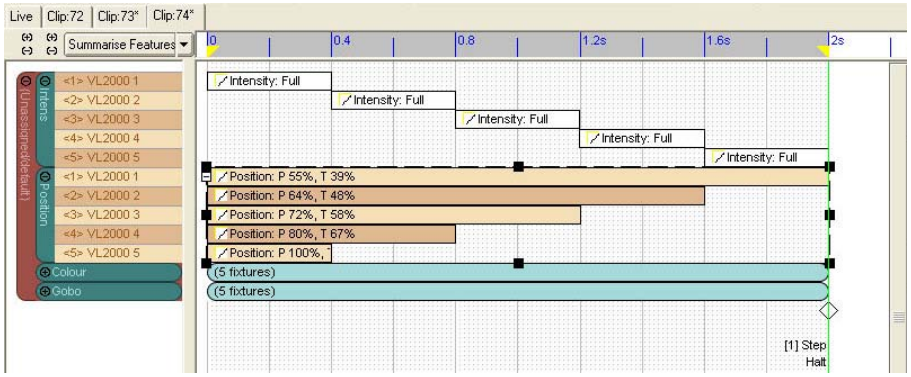
In the next example, we've selected the lower right handle of the selection and dragged it right to step the events over 2 seconds. This has offset the end fade time so the first fixture takes the original time of 400 milliseconds to fade in and the last fixture takes the full 2 seconds:



In the next example, we've selected the middle handle on the lower edge of the selection and dragged it right to step the events over 2 seconds, offsetting start and end fade times while retaining the 400 millisecond fade duration:

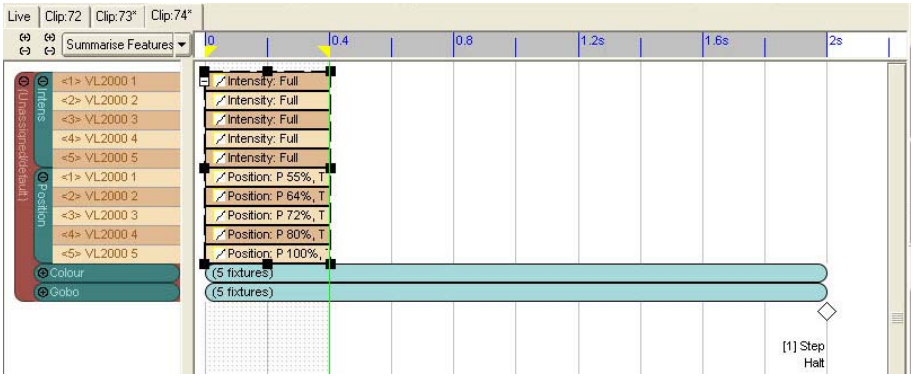


If we now open up the Position event summary bar, we can select and skew the position events too, completely separately from the intensity events:

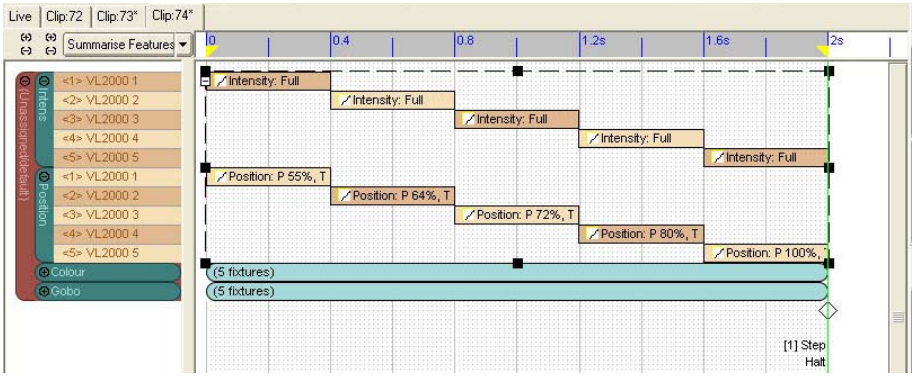


This is an easy way to create the same effects over more than one parameter (intensity and position for example), as you can change both simultaneously.

Starting with intensity and position events at a fade time of 400 milliseconds, we drag the middle handle on the lower edge to the right:

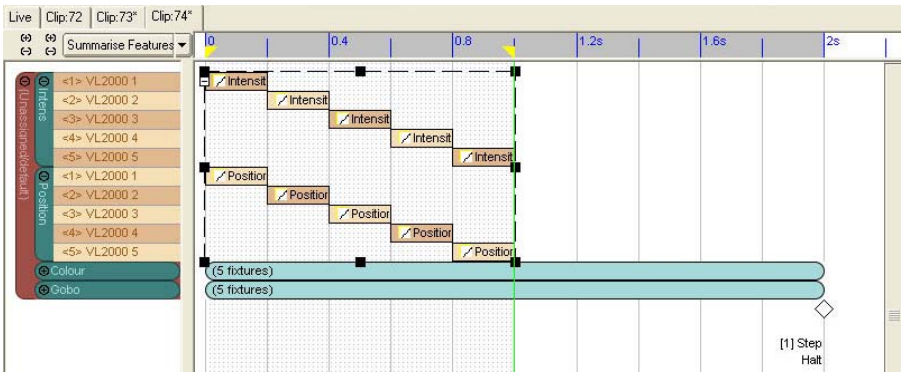


This creates the following effect:



The Intensity and Position events have the same offset start and fade times as well as duration in one easy action.

If we wanted that same effect but over 1 second and not 2 seconds, we'd select the middle handle on the right-hand side and drag it to the left until its duration is 1 second:

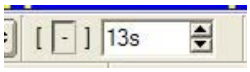


Using the selection handles in this way you can utterly transform the attributes of the selected events with just a few quick strokes of the pen. You can also adjust any of the intensity, colour and beam attributes at any time while adjusting the timeline events.

Making precise timing adjustments

If you want to set the start and end times and durations of events to a precise point on the timeline you can either zoom right in and line them up visually, or enter the actual time values.

On the toolbar of the timeline screen, there is a time field and three associated buttons:



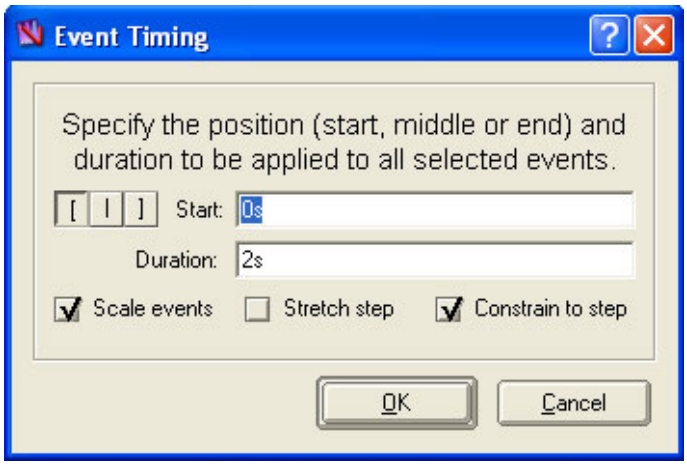
With these three buttons you can select the start, duration or end of an event. Once you've made a selection you can either type values directly into the field or use the + and – buttons on the end to adjust the values. You can enter times in hours, minutes and seconds, or as decimal units. For example, 1.1m or 1m6s or 66s would all result in the same time. If you don't enter units Vista assumes you mean seconds.

You'll notice that when you drag events around the timeline Vista updates these fields automatically.

Using the set timing window

You can also set event timing and adjust step duration using the 'set timing' window. To do this select the event(s), right-click and select 'set timing' from the popup menu.

Vista displays this screen:



This option…	does this…
[	Select to set the start time of an event
|	Select to set the mid point of an event
]	Select to set the end time of an event.
Start / Mid / End	Enter a time to set the start mid or end of an event to that position on the timeline. If you enter a number with no units Vista assumes seconds. Use h for hours, m for minutes, e.g. 1h2m3.5s

This option…	does this…
Duration	Enter a time to set the duration (or length) of an event(s). If you enter a number with no units Vista assumes seconds. Use h for hours, m for minutes, e.g. 1m2s.
Scale Events	Select this option if you want all selected events to be scaled when the duration is increased or decreased. Scaling is based on the longest event. If this box is not ticked all events will be set to the same duration
Stretch step	Select this option if you want the step containing the selected events to be automatically stretched or reduced in size .
Constrain to Step	Select this option if you want the events to be fitted within the step. Events that are longer than the step will be reduced to the step length.

Aligning start and end points

You can also align the start and end times of selected events. To do this, select the events and click the alignment icons on the toolbar:

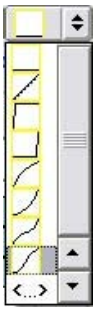
These two icons respectively align the start and end times of the selected events.

Chaining events

You can also use the chain command to align the end point of one event with the start point of another event. To do this, select the events and choose the chain option from the Tools menu. You can chain two or more events this way.

Setting the fade path

Vista provides a set of pre-defined fade path shapes so you can quickly set how an event will progress. Click the drop-down box on the toolbar beside the timing fields to display the fade path options:



The shapes in this menu depict the fade paths you can choose:

This shape…	means this…
	Automatic. Uses the default path for the event type. i.e. Intensity events fade, colour/gobo wheels snap
	Standard linear fade, going to the final state over the duration of the event.
	Snap at start - go to state very quickly.
	Snap at end - go to state at the end of the event.
	Delay, then slide up to the state.
	Reach the final state approximately halfway through the event.
	Fast start and end with slow fade time in between
	Slow start and end with quick fade time in between
	Displayed when you have multiple fixtures with different fade paths selected.

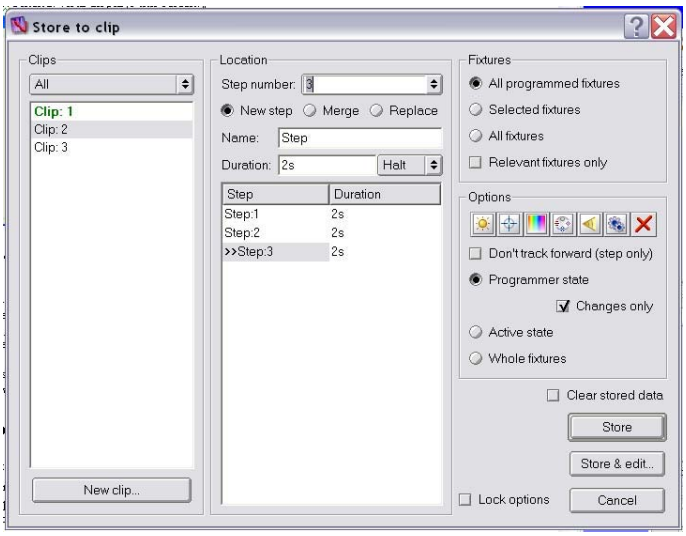
Tip: Instead of making an event very short, just set it to Snap at Start. If an event is set to 0s duration it will automatically be adjusted to 100ms and the fade path will be set to 'Snap at start'.

Storing from the Live tab to another Clip

Sometimes you'll just want to create some programming and store it somewhere, rather than creating a clip and building it from the bottom up.

If you've created information in the Live tab of the Programmer, you can add it or merge it into an existing clip, or used it to replace a step in another clip. You can even start a new clip using the Store-to-Clip window.

To do this press Shift+Return on the keyboard or select the 'Store Live' option on the Live menu. Vista displays this screen:



Selecting the Clip to Store to

You can choose to Store to an existing clip or a new clip. To do this:

1. Click the Clips drop-down box to show either All clips or just the Clips on the current Workspace.

2. Click on the New clip… button if you want to store to a new clip.

Tip: You can also display the Store Live dialogue at any time while in the Programmer Live screen by pressing Shift + Enter on the keyboard.

Selecting the Step and store options

You can store a new step, merge to or replace the contents of an existing step. To do this:

1. To create a new step, select the New Step button; to merge to an existing step, select the Merge button; select the Replace radio button if you want to replace the contents of a step.

2. If you are creating a new step you can either type a number in the Step Number box or click before or after any step in the step list to set the insert location.

3. If you are Merging or Replacing you can either type a number in the Step Number box or click on any step in the step list to choose that step.

4. For a new step enter the step name, duration and end of step action.

5. Select the fixtures to include when storing:

This option…	**does this…**
All Programmed Fixtures	Stores to all fixtures that have had settings changed in the programmer.

This option…	does this…
Selected Fixtures	Stores to the fixtures that are selected in the Live tab.
All Fixtures	Selects all patched fixtures.
Relevant fixtures only	Tick this checkbox to exclude any fixtures that are not already in the Clip.

6. Select the parameters to store using the filter bar. Click on any of the Intensity, Position, Colour, Gobo, Beam or Miscellaneous icons to mask or un-mask that parameter.

7. Select the tracking and store options

This option…	does this…
Don't track forward (step only)	Click this checkbox to undo any changes in the following step. Not available if storing to the last step
Programmer state	Select this button to only store information coming from the programmer.
Changes only	Select this button to store just the changes that have been made in the programmer.
Active state	Select this button to store all information, from both the programmer and any active playbacks.
Whole Fixtures	Select this button to store all parameters, even if they have not been modified in the programmer.

8. Select the 'Clear stored data' checkbox if you want to clear any stored information from the Live programmer.

Store or Store & Edit

When you are ready to store there are two options. You can either:

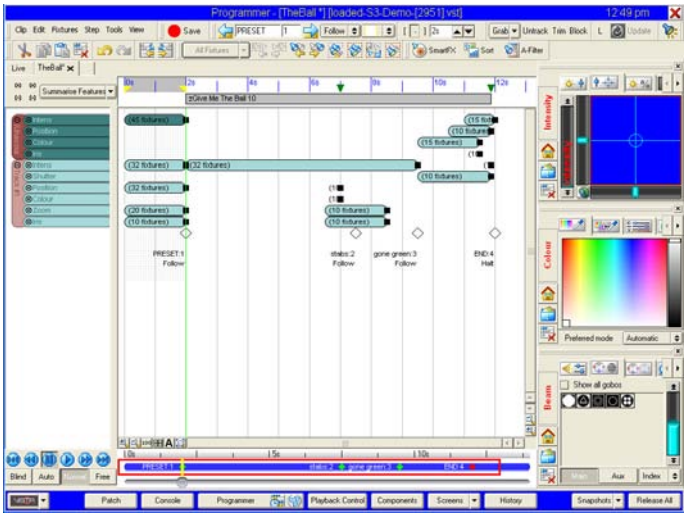
- click Store to save changes to the Clip
- click Store & Edit to save changes to the Clip and switch to the timeline view of that clip to make further changes. The Clip will be set to 'Free' mode and the playhead will be at 0.

Tick the 'Lock options' checkbox to remember the settings in the Fixture and Options section.

Tip: When merging information from the Store Live dialogue Vista uses the step active region (the time from the start of the first event in the step to the end of the last event) as the default time.

Working with steps

Events on the timeline are contained within a 'step', and each clip can have any number of steps. The steps occur in sequence along the timeline and the end of each step is marked with a diamond shape, as shown in this example:



The diamond marker represents the end of the step and determines what happens when playback reaches this point.

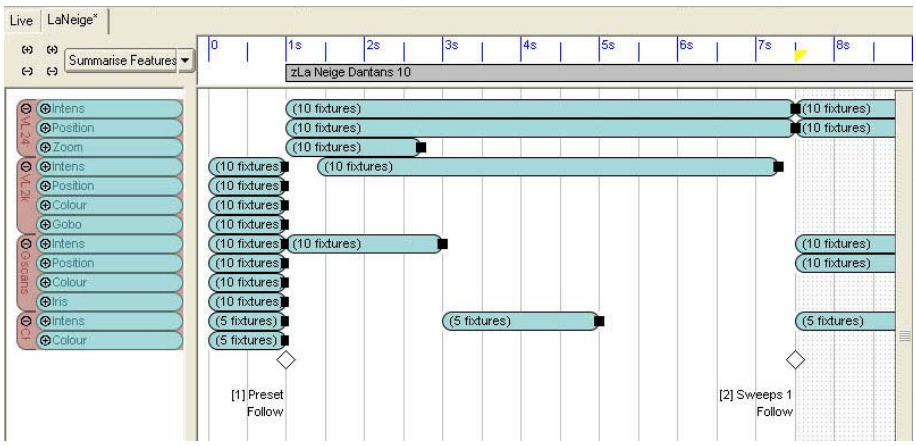
Vista displays green diamonds marking the end points of each step in the progress bar at the bottom of the screen so you can quickly see the main points of your clip.

Tip: Normally a step marker can only be moved to the right – to lengthen the step. This does not change the length of any events in the step. You can use the coloured modifier buttons to change this action as follows:

Holding this modifier when moving a Step marker	**does this…**
Yellow (Ctrl)	Moves events to the left and right of the Step marker with the marker
Green (Alt)	Gives you free control of the Step marker

Setting the end of step instructions

Each step lasts for a duration defined by the start point of the first event in it and the end point of the last event. In this example we can see a label on the timeline 'Sweeps 1 - Follow':



Each step needs an instruction telling it what to do when it reaches its end point. To set this you can either click on the diamond marker, or select the event and choose an option from the drop-down menu beside the Step field:

There are three options:

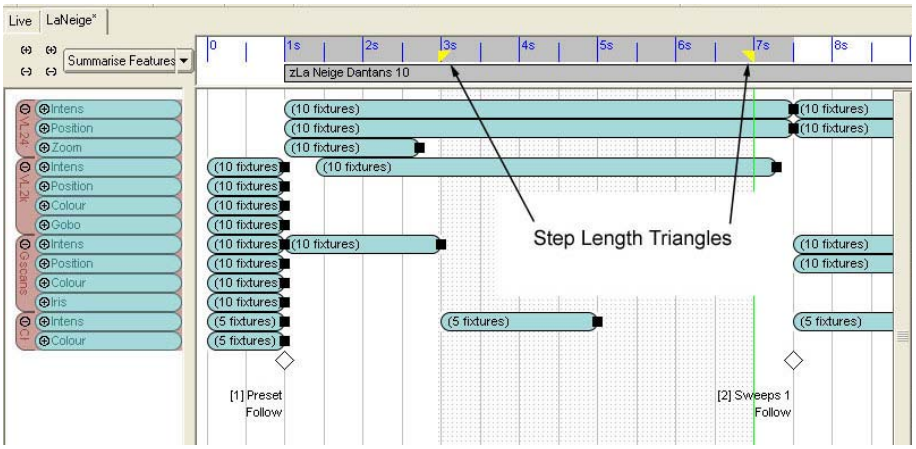
This option…	**does this…**
Follow	When Vista reaches the end of this step it automatically goes straight on to the next step in the clip.
Halt	When Vista reaches the end of this step it stops playing.
Repeat	When Vista reaches the end of this step it will replay the step you specify in the 'repeat' step down list. This step and any intervening steps will be replayed for the number of times you specify in the 'times' box.

You can focus in on the Steps in a clip one at a time using the left and right arrow keys on the toolbar:

You can add a new step, before the first step or after the last step by selecting the first step and clicking the Left arrow icon or selecting the last step and clicking the right arrow icon. You can also name new steps or rename existing steps in this field.

Pre-determining event lengths

You can pre-determine the starting point, duration and end point of an event using the two yellow Event Length triangles on the time 'ruler' at the top of the timeline:



Tap and drag these triangles to define the start and end points of a step. When you next add events to the timeline Vista automatically places the events between these two points in time.

Managing steps in the Step list view

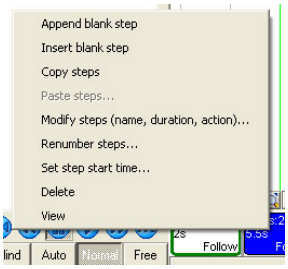
Step List View

You can switch the area at the bottom of the timeline screen to show each step as a tab. To swap between the navigator view and the step list view press the back quote (`) key or select the 'Show step list' option from the View menu. Vista displays the Step list view:

In this area:

- each step tab shows the name, duration and end of step action
- the current step shows with a green outline
- the selected steps show as a blue tab with white text. Click on a tab to select it, shift-click or ctrl-click to select a range or group of steps.

You can right-click on a selected step or in the blank area to the right of the step list to open a popup menu with the following options:



With these options you can:

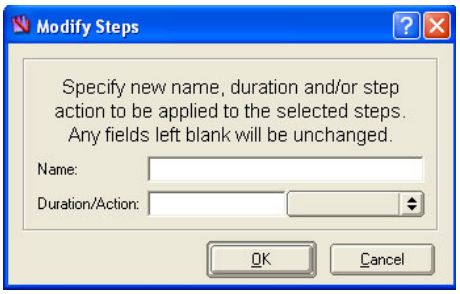
- append a blank step to the end of the clip
- insert a blank step before the selected step
- copy the selected steps
- paste the copied steps
- modify the step name, duration, and end of step action
- renumber steps
- set the step start time
- delete the steps.

Modifying step name, duration, and end of step action

To change step name, duration, and end of step action of one or more steps:

1. Select the step with the pen or mouse. Shift-click or ctrl-click to extend the selection.

2. Right-click to open the pop-up menu and select the 'Modify step… option. Vista displays the Modify steps window:


Modify Steps
Specify new name, duration and/or step action to be applied to the selected steps. Any fields left blank will be unchanged.
Name:
Duration/Action:
OK
Cancel

3. In the Name field, enter a new name for the step. Leave this field blank if you want to leave the name as it is.

4. In the Duration field, enter a new time for the step (i.e. 1.5s or 1m2s). Leave this field blank if you want to leave the step duration as it is.

5. In the Action field, select the end-of-step action from the dropdown menu. Leave this field blank if you want to leave the action as it is.

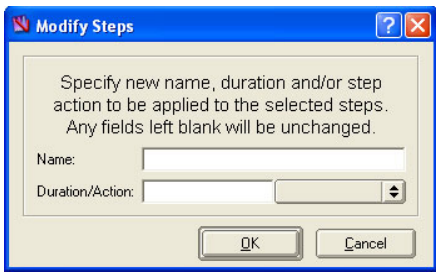
6. Click OK to complete the changes.

Modifying the step start time

To change step start time:

1. Select the step with the pen or mouse.

2. Right-click to open the pop-up menu and select the 'Set Step Start time' option. Vista displays the Start time window:


Modify Steps
Specify new name, duration and/or step action to be applied to the selected steps. Any fields left blank will be unchanged.
Name:
Duration/Action:
OK
Cancel

3. In the Start time field, enter the time at which you want the step to start. You can enter times in hours minutes and seconds or as decimal units. If you are using Timecode the start time can be entered as hours minutes seconds and frames. Use a semi-colon between units. I.E. to enter 1 second and 12 frames - 0:0:1:12.

4. Select the action for steps that will become shorter if the changes are not rippled forward:

This option…	**does this…**
Retain timing	If a step is made shorter events in the step are not changed. Events may then be longer than the step. (i.e. span the next step)
Truncate events	If a step is made shorter events in the step are shortened, if necessary, to fit into the step.
Keep scale	If a step is made shorter all events are scaled accordingly.

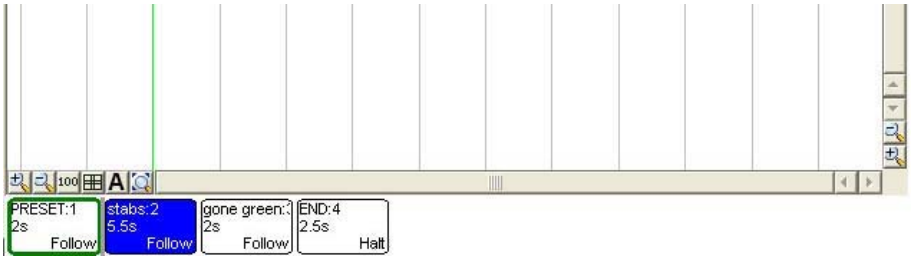
5. Tick the Ripple forward box if you want the changes to flow through to following steps. When the box is ticked if a step is made longer all steps to the right of it will be moved accordingly.

6. Click OK to complete the changes.

Moving and copying steps to another Clip

Often you'll have an effect in one of more steps of a clip that you'd like to use in another clip. You can do this using the navigator pane step list view. To switch to this view, open a clip in the programmer and press the ` (single quote) key or select 'Show Step List' from the View menu.

Vista switches the navigator pane to show step list view:



In this view Vista shows each step as a small box containing the Step name, step duration and end of step action. The current step is represented with a green border and when you click on a step, or steps, the dark blue colour shows that this step(s) is currently selected.

The step list view provides two ways to move or copy steps. You can:

- select the step(s), then drag and drop those steps to a new location in the same clip or to another clip
- select the steps and use the right-click (popup) menu to select the required action.

Using drag and drop to copy steps

To do this:

1. Click on a step box to select that step, then either Shift-click on another step to select a range of steps or Control-click on another step to add it to the selection.

2. Click on the selected steps and drag them to a new position in the step list. As you drag you'll see a grey position marker appear between the step boxes. Lift the pen or release the mouse button to drop the steps in the new position.

3. To copy the steps to another clip, select the steps as above then drag them to the other Clip tab. That Clip will pop open and you can position the steps in its step list.

Tip: When you drag and drop steps this way the default action is to maintain the state of the source steps. For example you might copy from a clip that has position in step 1, intensity in step 2 and colour in step 3. If you select and drag step 3, Vista pastes intensity, position and colour (the state of step 3) to the destination step.

Likewise Vista will discard any redundant state information at the destination. For example if the source step had intensity information that was already the same in the destination clip it would be discarded.

Tip: You can also open the Copy/Move step options window by holding down the Control key when dropping the steps. For more information see below.

Using the popup menu to move or copy steps

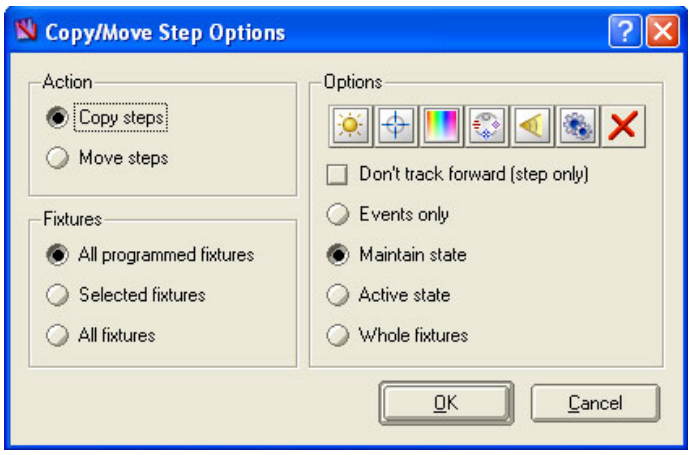
To do this:

1. Select one or more steps as described above.

2. Right-click in the step list and select copy from the popup menu

3. Click in the location you want to move or copy to

4. Right-click to open the popup menu.



This option…	**does this…**
Copy Steps	Makes a copy of the source steps
Move Steps	Moves the source steps to the destination clip (deleting the steps from the source).
All Programmed Fixtures	Copies information for all fixtures in the source step.
Selected Fixtures	Copies information for all selected fixtures.
All Fixtures	Copies information for all patched fixtures (even if not in the source clip). This option is useful if you want to recreate the exact look of the source step. The Whole fixture option is auto-selected.
Parameter Filter	Use the filter bar to select or de-select the features you want to copy to the destination. You cannot filter when moving a step - this is to prevent accidental loss of programming.
Don't track forward (step only)	Click this checkbox to undo any changes in the following step. Not available if storing to the last step.
Events only	Stores contents of the source step only, excluding any tracked state.
Maintain state	Stores contents of the source step, including any tracked state.
Active state	Stores contents of the source step, including any tracked state plus relevant active state from playbacks
Whole Fixtures	Stores contents of the source step, plus full parameter information for affected fixtures..

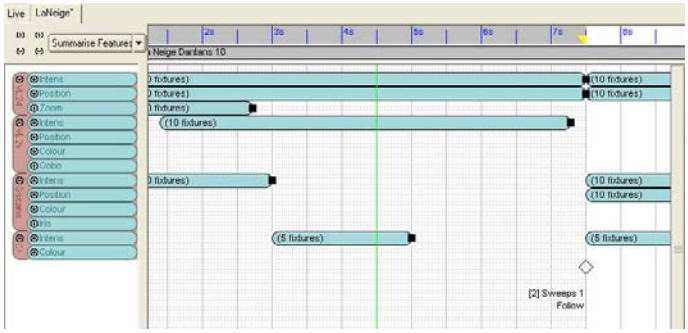
Splitting steps

You can split a step into two steps to give you more detailed control of the events within it. To split a step, either:

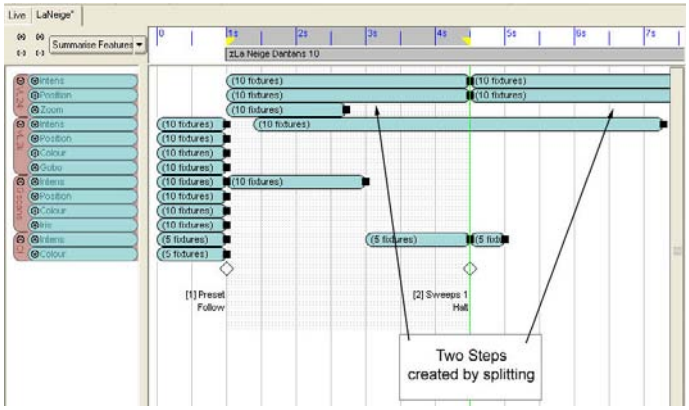
- click on the timescale at the top of the timeline at the point where you want to split the step, then choose 'Split at cursor' option from the Step menu, or
- position the green Playhead line at the point where you want to split the step, then choose 'Split at Playhead' option from the Step menu.

Vista splits the step into two at that point. This example shows the 'before' and 'after' effect of using this function:

Before splitting



After splitting



Adding markers to the timeline

You can denote significant points on the timeline with markers and use them as moveable 'snap-to' points. This is useful when working with SMPTE timecode because the markers are independent of the standard 'snap-to' points of the timeline grid, so you can place them anywhere you like within time.

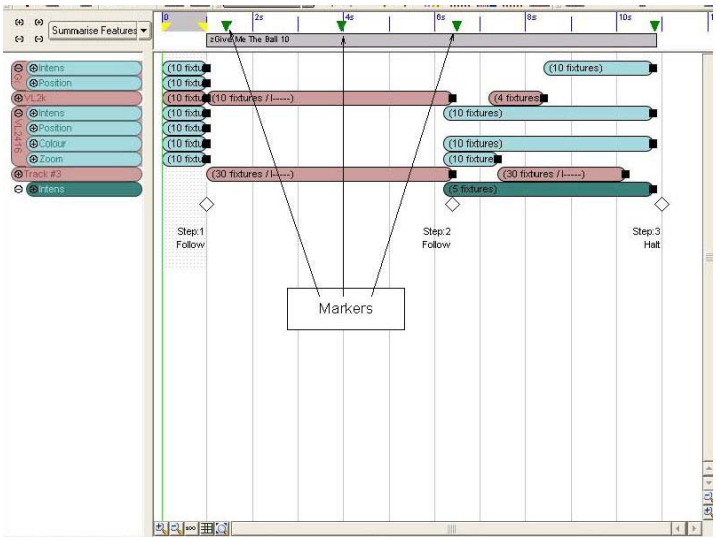
To add a marker:

1. Tap on the timescale 'ruler' at the top of the timeline and right-click to display the pop-up menu.

2. Choose the 'Add marker @ cursor option'. Vista adds a green arrow at that point.

Tip: You can also add a marker at the playhead position using the keyboard shortcut Alt-M.

This example shows three markers on the timescale:



Removing Markers

To remove one or more markers from the timeline, select the step that contains them, then choose the Remove markers option from the Tools menu (also available by right-clicking in the timeline).

Converting Markers to Steps

Markers created in an **empty** step can be converted to steps. This feature is useful if you want to listen to an audio track and set up step markers corresponding to particular moments in the track.

To do this:

1. Open a new clip and either insert an audio track or set the end-of-step marker to the duration (or a little longer) of the audio track
2. Play the clip and simultaneously start the audio if it's not in the clip.
3. Press Alt-M on the keyboard whenever you want to insert a marker.
4. When you've finished placing markers select the 'markers to steps' option on the Tools menu. Vista converts all markers to steps and renumbers the steps.

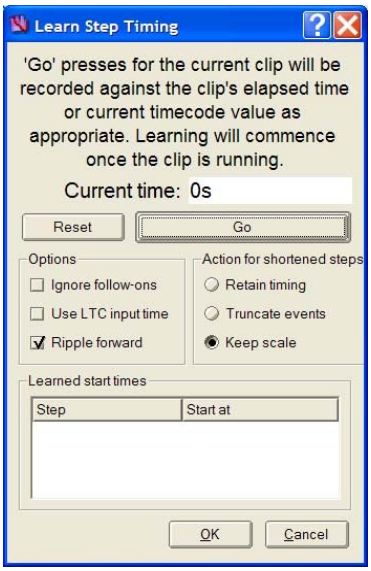
Learn timing

You can programme a Clip then use the 'learn timing' window to adjust the index points automatically based on your actions. This is useful if you want to fine-tune step timing to an audio or video track.

To use Learn timing:

1. Open the Clip you want to use.

2. Select the 'Learn timing…' option from the Tools menu. Vista opens the Learn Timing window:



3. If you want to learn timing for all steps make sure the Clip is not already running. The Current time box should be showing 0s. If it's not you can click the Reset button.

4. Use the radio buttons to select the Options and Actions:

This option…	**does this…**
Ignore follow-ons	Tick this option to treat all steps as halts while learning timing.
Use LTC input time	Uses the SMPTE timecode at the time you press Go as the Step start time.
Ripple forward	If a step is made longer all steps to the right of it will be moved accordingly.
Retain timing	If a step is made shorter events in the step are not changed. Events may then be longer than the step. (i.e. span the next step)
Truncate events	If a step is made shorter events in the step are shortened, if necessary, to fit into the step.
Keep scale	If a step is made shorter all events are scaled accordingly.

5. Once you have set the options and are ready to go, either press the Clip Go button on the console or click the Go button in the window.

6. Continue to press the Go button again whenever you want the next step to start. Vista displays the learned start times at the bottom of the window.

7. If the new step times are correct click OK. Vista adjusts the step markers.

Tip: You can also add a marker at the playhead position using the keyboard shortcut Alt-M.

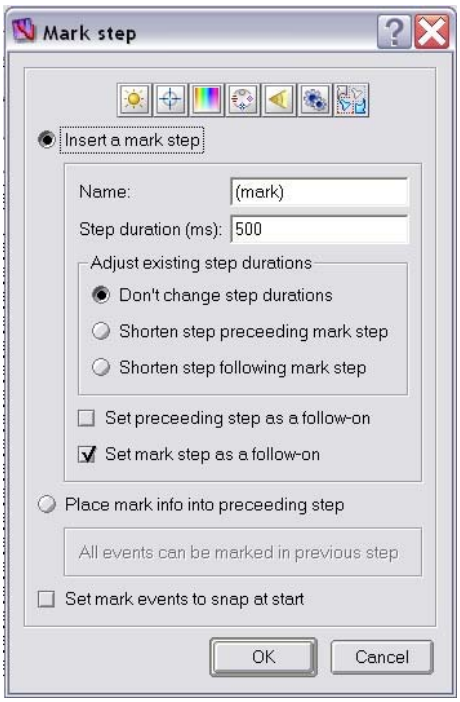
Inserting a 'Mark' step

Sometimes you will want fixtures to move to a position, change to a colour, add a gobo or get set up in some other way while their intensities are at zero. You could do this by programming the necessary events, but you can also do it quickly using the 'Insert Mark Step' option on the Tools menu in the Programmer window.

When you create Mark step events your original programming is not altered in any way. Instead special events are created that duplicate the programmed events. Because of this, if you change the original programming the associated mark events are automatically updated to match.

Tip: If you delete an event that has an associated mark event, the mark event is not automatically deleted. Instead it becomes associated with the next event of that type.

To use this option, switch to the Summarise by Fixture view, select the fixtures you want to mark, and choose the Insert Mark Step option. Vista displays this screen:



This screen shows the options available; you use it to set the way Vista stores the Mark Step events.

You can either insert a new step to accommodate the mark events or , if it’s possible, you can put the mark events in the previous step:

This option…	**does this…**
Filter bar	Use the filter bar to select or deselect the features you want to mark. You cannot filter when moving a step - this is to prevent accidental loss of programming.
Insert a mark step	Inserts a new step before the current step.
Name	Sets the name for the new step that will be created.
Step Duration	Sets the duration for the new step
Adjust existing step durations	If you insert a new mark step this option allows you to subtract time from the step before or after the new step. This way the overall length of the clip will not be changed by the addition of the mark step. With these buttons you can: • leave the step lengths unchanged • shorten the next step - by the same amount of time as set in ‘Step duration’. • shorten the previous step - by the same amount of time as set in ‘Step duration’.
Set preceding step as follow on	This option changes the step before the new mark step to ‘follow’. That way, at the end of the previous step the mark events run automatically.
Place mark events into preceding step	This option is only available if it’s possible to place some of the mark events in the previous step. The message below this option shows whether all, some or no events can be placed. If the option is selected but only some events can be placed then the other events will not be marked.
Set mark events to snap at start	This option changes the mark events to ‘snap at start’. This option is useful if you want the mark to take place as quickly as possible.

Making changes to a step without affecting the next step

It's often useful to make changes to step without those changes tracking through to the following step. For example, you might have a clip where the lights change to colour blue in step 1 and stay that way until they change to red in step 10. If you then decide you want them to be yellow in just step 5 you could make that change but since there are no colour events in steps 6-9 the lights will stay yellow when you really want them to revert back to blue in step 6.

For this situation Vista provides a method to make changes to a step only, some consoles refer to this as making changes cue-only. To do this:

1. Edit a clip and make the changes.

2. In the timeline select the events – they will normally be highlighted already.

3. Click on the 'Untrack' button on the toolbar or select the 'Un-track events (step only)' option from the Tools menu. Vista inserts events in the following step to set the lights back to the state they were in before the change. If there were no events of that type originally, Vista inserts release events instead.

Trimming unwanted events

If you want to get rid of all but a few events in a step Vista provides a quick method:

1. Select just the events you want to keep.

2. Click on the 'Trim' button on the toolbar or select the 'Trim' option from the Tools menu. Vista deletes all but the selected events.

Blocking a step

Vista is a tracking console, which means that only changed information is stored in any step and that any information in a step tracks forward until it is replaced by a new event or cleared. Sometimes it's useful to 'block' a step so that any changes that are subsequently made to previous steps will not affect the final look of the chosen step.

To do this:

1. Select the step you want to keep exactly as it is. You can select the step by clicking on the end-of-step diamond or by using the previous/next step icons.

2. Click on the 'Block' button on the toolbar or select the 'Block' option from the Tools menu. Vista duplicates all tracked information into the selected step.

Creating and applying extracts

Extracts are like programming templates and can contain any of the attributes you define on the palettes: intensity, colour, beam, position, and so on. They also store the timing associated with the events.

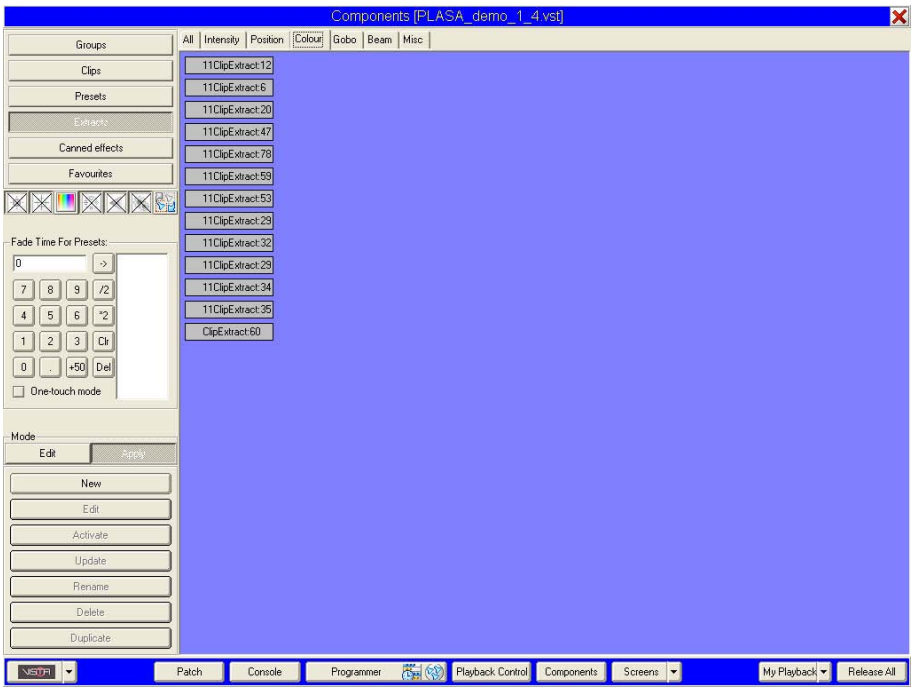
An extract is a section of a clip (or range of events) that you can save and re-apply in other clips. By re-using existing material to build new clips you can save yourself a lot of time re-creating your favourite lighting effects.

Creating extracts

To create an extract:

1. Select the part of the clip or events on the timeline that you want to extract.

2. Click the Components button on the relevant palette, then click the Extracts button. Vista displays the Components Extracts screen with the filters set to filter out all the other attributes of the events you selected:



In this example we clicked the Components icon on the Colour palette, so Vista has filtered out all the other attributes. The masks that are on show as 'crossed-out' icons below the buttons in the top-left of the screen. If you want to include other attributes in this extract, click the relevant mask buttons to switch the masks off.

3. Click the New button. Vista stores the extract with a default name.

4. Right-click on the new extract icon and choose the Rename option from the pop-up menu. Type a meaningful name for the extract.

Applying extracts

To apply an extract:

1. Select one or more fixtures in the Programmer Fixture window.
2. Click the Components button on the relevant palette.
3. Click on the Extracts button in the Components window.
4. Find the extract you want and click on it to select it.
5. Set the mask buttons so that the attributes you want are applied. Any attribute that is masked, even if it is part of the extract, will not be applied.
6. Click the Close button.

Arranging extracts

You'll probably end up with a lot of extracts of all different kinds fairly quickly. The 'All' tab always show every extract you've created, whatever type it is. To enable you to find the one you want easily Vista automatically sorts your extracts into a number of separate tabs for Intensity extracts, Position extracts, etc. You can also add other tabs to enable you to arrange extracts in any way you choose.

To do this:

1. Click the Components buttons on one of the palettes to open the Components window.
2. Click on the Extracts button in the Components window.
3. Right-click on or to the right of the tab labelled 'All' at the top of the window, and choose the 'Add Page' option. Vista adds a new tab labelled 'Page #'.
4. Double-click the tab name to highlight it and type in a more meaningful name that describes the types of extracts you're going to keep in this folder, (e.g. 'Flyouts').
5. Select the extracts you want to move to this folder, then drag and drop them onto the new tab. Vista copies them from the 'All presets' folder into this folder. Now when you click on the new tab, you'll see your extracts in there.

Editing extracts

You can use the Programmer to add, remove or change information stored in an extract, there are two ways to open an extract for editing:

- in the Components window you can select the Preset and click on the Edit button, or
- select the Preset in the Quick Picker and select Edit from the pen pop-up (right click).

Once the Extract is open in the Programmer you can make changes in the same way as you do when editing a Clip:

- select fixtures in the Fixture Chooser window and add, remove or change settings using the palettes or encoders
- select fixtures or Event bars in the Timeline window add, remove or change settings using the palettes or encoders.

To save changes to an extract, choose the Save Clip option from the Clip menu.

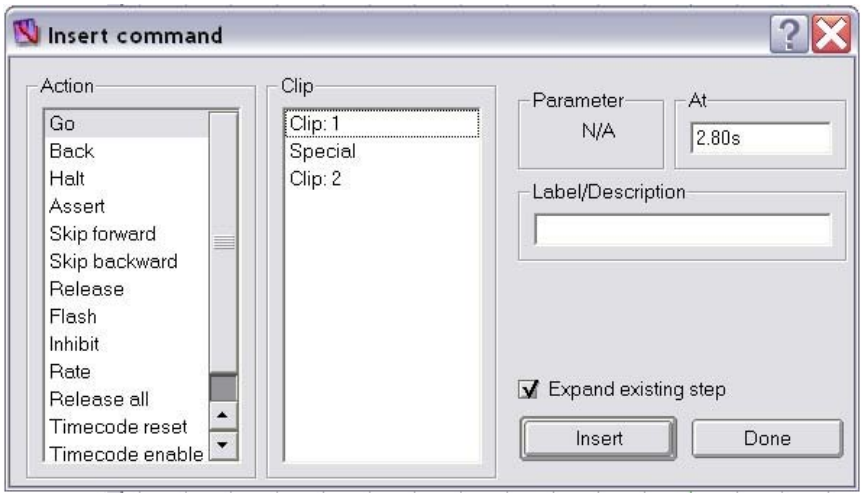
Tip: When you are editing an extract you can switch between the Fixture view and Timeline view by either clicking on the Programmer button icons or selecting Timeline or Fixture chooser from the View menu.

Using commands within clips

Commands let you use a Clip to control the playback of one or more other clips.

To insert commands within a clip:

1. Open a clip in the programmer and choose the Insert Commands... option from the Tools menu. Vista opens the Insert Command window:



2. Select the command to insert from the Action column:

This option…	**does this…**
Go, Back, Halt, Assert, Skip Fwd, Skip Back, Release,	Acts on the clip as if you had pressed the corresponding button on the playback controls for that clip.
Flash	Equivalent to pressing the flash button on a clip's playback controls. You must also enter either 'on' to flash or ''off' to flash in the Parameter box.

This option…	does this…
Inhibit	Inhibits (blinds) or un-inhibits the clip. You must enter either ‘on’ or ‘off’ in the Parameter box.
Rate	The Parameter field is a text field and only allows valid input (e.g. numerical BPM value).
Release All	Releases All active clips. No other options are available when this command is selected.
Timecode reset	Resets the timecode to 00:00:00:00.
Timecode enable	Sets a clip to be activated by Timecode.
Jump	Allows you to Jump to a specific step within a clip.

3. Select the Clip to be triggered from the Clip column.
4. Enter an on or off command or step number, if applicable, in the Parameter field.
5. The command will normally be placed in the clip at the current playhead position. If you want to put it at a different position enter a time in the At field.
6. Enter a descriptive label in the Label/Description field if required. This text will appear alongside the command, in the timeline.
7. Normally Vista creates a new end step if you place the command beyond the end of the clip. If you prefer to extend the last step of the clip tick the 'Expand existing step' checkbox.
8. Click ‘Insert’ to insert the command and close the window.

Learning actions

The 'At' field updates continuously if the clip is playing back. This means you can select the 'go' action and the target clip, then play back the command clip and press the 'insert' button at the desired times to advance the target clip, capturing and inserting the commands at the relevant positions within the command clip.

Blind

If a clip is in Blind mode, all commands in the clip will be ignored in the programmer.

Grabbing the console output

Sometimes you'll want to capture whatever output the console is producing at a given moment and bring it into a clip. This is called 'grabbing', and it's particularly useful as a way of building a Clip from a look you've built on stage.

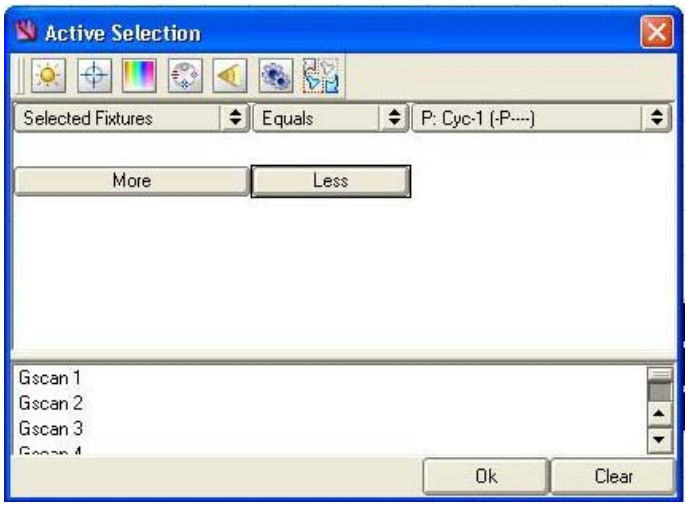
To grab the console output at any time when one or more clips are playing:

1. Open a new Clip or a Clip you want to add to.
2. In the Fixtures view, select the fixtures you want to grab. If you don't select any fixtures the Vista assumes and selects All fixtures
3. Switch to the Timeline view and click the Grab icon on the toolbar:

4. Choose the Grab Active or Grab Full option from the pop-up menu. Grab Active grabs whatever attributes are playing right now (e.g. intensity, colour), and pastes them into the timeline as a new event. Grab Full captures the full state of the fixtures (e.g. if there is No colour event a Colour White event will be created). If you've made any changes to the events since you loaded the clips, Vista grabs these changes too.

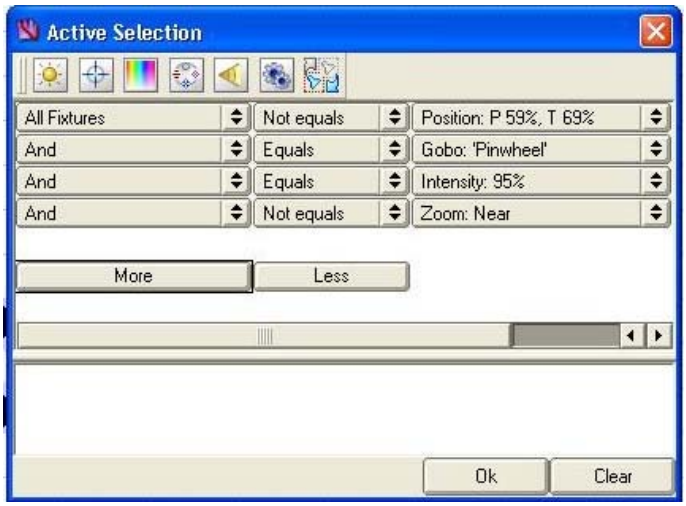
Selecting events by attribute

If you want to select all the events that have a similar attribute (e.g. all the instructions to use red), choose the Active Filter option from the Fixtures menu on the Programmer screen. Vista displays the Active Filter screen:



Use the three drop-down lists and the filter buttons to choose the attributes you want, then click OK to select all the fixtures with those attributes. To add more lines so you can narrow the definition of the fixtures you want to select, click the More button.

Each time you click it, Vista adds a row of fields so you can define multiple attributes, as in this example:



Here we are selecting all fixtures that have the following attributes:

- a position other than Pan 59% and Tilt 69%
- a 'Pinwheel' gobo
- intensity at 95%
- not zoomed near.

Update Presets and Clips during playback

When you make changes in the Programmer Live tab while a clip is being played back, you can make those changes apply to the presets from which you constructed the clip, or just make the changes to the clip itself.

Tip: Update is designed to change settings that are already in a Clip and does **not** automatically add new events or fixtures to a Clip, but you can open a Clip and add new information in the programmer window on the Update window.

Existing information

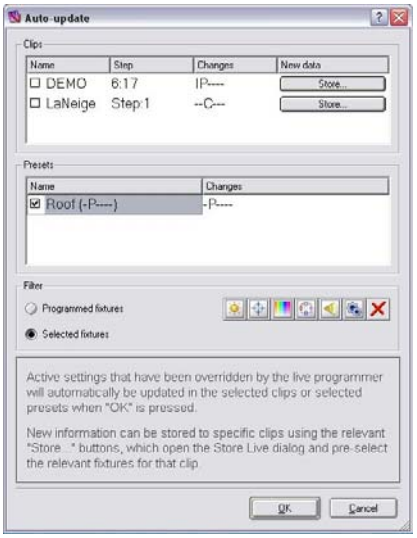
To update **existing** information:

1. While a clip is playing, go to the Live tab in the Programmer window and select the fixtures you want to change.

2. Make the adjustments you want using the palettes or hardware controls.

3. Click the Update icon , or choose the Update option from the Live menu.

4. Vista displays the Update window:



Here you can choose whether to apply the changes to Clips or Presets if they are in use. You can also filter the changes by fixtures and parameter. By default, Vista selects the presets.

5. To apply the changes to presets, click the checkboxes beside the preset names in the Presets pane or, click the checkboxes beside the clip names in the Clips pane to apply the changes to one or more clip rather than to the presets.

6. To make the changes to all Fixtures in the Clip or Preset, click the 'Programmed fixtures' checkbox in the Filter pane. To make the changes to just the selected fixtures click 'Selected fixtures' checkbox.

7. You can use the parameter filter icons to select or de-select the features you want to include in the preset - Intensity, Position, Colour, Gobo, Beam and Misc. For more information about the parameter filter bar refer to *Creating presets* on page *50*.

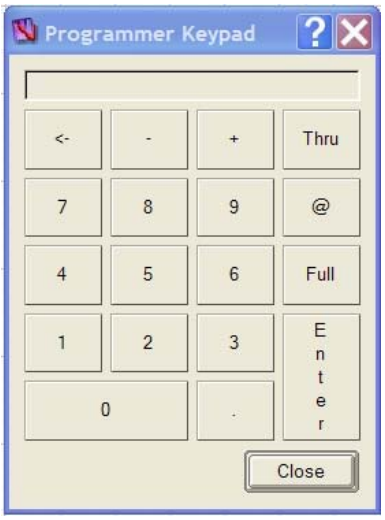
8. When you've defined how you want to apply your changes, click the OK button to return to the Programmer screen.

New fixtures

To add **new** fixtures or information, click the 'Store…' button beside the Clip name in the Clips pane. Vista opens the Store Live windows where you can choose the step to change and options to store 'step only' etc. *See Storing from the Live tab to another Clip* on page *72*. When you Store the changes to the clip and close the Store Live window, Vista closes the update window.

Using the keypad in the programmer window

In some situations it is convenient to select fixtures and set intensities using a keypad. To use the Vista keypad choose the Control panels > Show virtual keypad from the View menu:



Hardware Keypad

You can use the keyboard number keys or a separate keypad when the on-screen keypad is showing. The 'Num lock' key should be on and in addition to the number keys the following special keys are available:

This button…	does this…
/	Thru
*	At
F	Full
Backspace	<- Backspace (Clear)

Selecting fixtures with the virtual keypad

Use the keypad to select Fixture by their ID number(s). For example:

- 1 + 5 + 10 Enter selects fixtures 1, 5 and 10
- 1>10 - 4>6 Enter selects fixtures 1, 2, 3, 7, 8, 9 and 10

Selecting fixtures and setting levels with the virtual keypad

You can also set levels with the keypad. For example:

- 1 > 10 @ 50 Enter selects fixtures 1 through 10 and sets them to 50%
- 1 > 10 @ Full selects fixtures 1 through 10 and sets them to 100%
- 1 > @ 1 Enter selects all fixtures and sets them to 10%.

Using effects

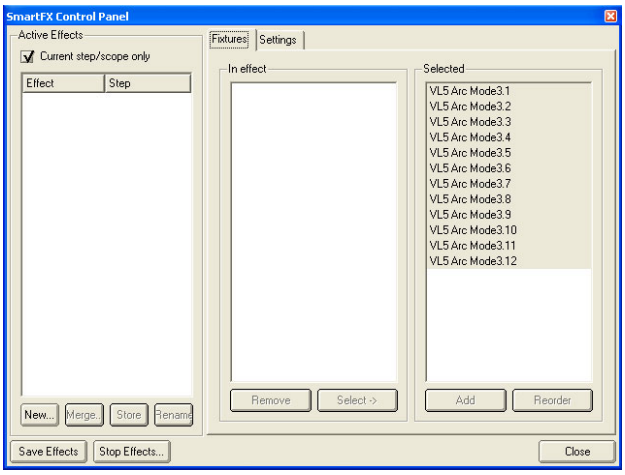
There are several ways to use effects. You can:

- apply a single stored ('canned') effect
- swing between two of your presets
- create your own effects from scratch
- modify existing effects.

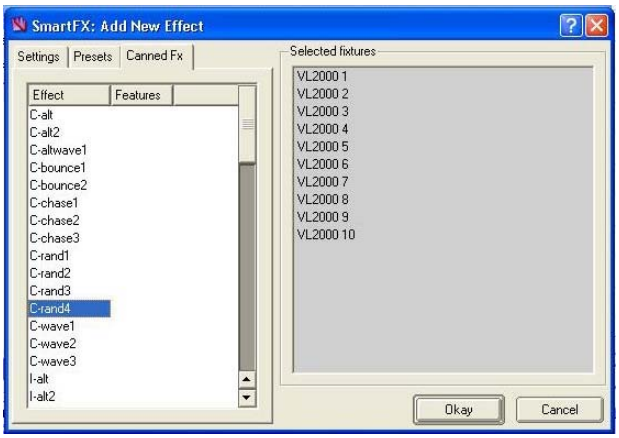
Applying a single stored (canned) effect

To apply an effect:

1. In the Programmer Fixture window, select the fixtures you want.
2. Click the SmartFX button on the toolbar. Vista displays the SmartFX window:



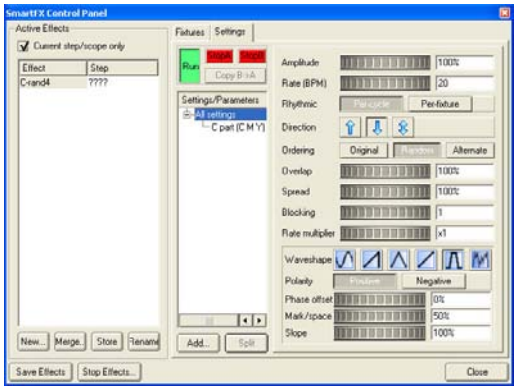
3. Click the New button to display the Add New Effect window:
4. Click the Stored (Canned) FX tab. Vista displays the list of available stored (canned) effects:



The first few letters of each effect title tells you which parameters are in this effect (e.g. I-Intensity, P-Position, C-Colour, etc).

5. To apply an effect, click on the effect you want and click the OK button. Vista displays the Smart Effects window showing the effect you've chosen.

6. To add a second effect that is synchronized with the first one, click the Settings tab to display the SmartFX Control Panel:



7. Click the Add button, choose another effect and click OK. Vista adds this effect to the list in the Settings/Parameters box.

8. To adjust the parameters of an effect, click on it in the Settings/Parameters box and use the controls to adjust it (see *Effect controls* on page 102).

9. To see the effect, click the green Run button. To stop if, click the red Stop button – a swing effect has two stop buttons.

Stored (Canned) effects that modulate or swing

Stored (Canned) effects are pre-set to either swing or modulate. Swinging means the fixtures move between two sets of attributes determined by the effect (e.g. moving from to left to right). Effects that are preset to modulate will apply their own varying attributes about a particular setting (e.g. creating a circle around a position).

Swinging between two of your own presets

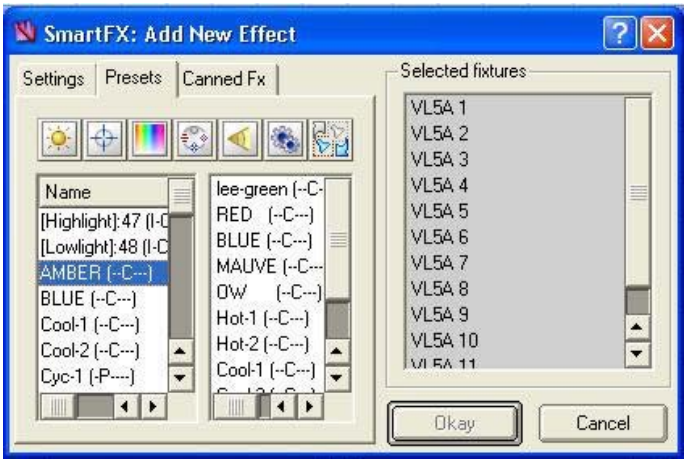
Once you've created a couple of presets (see *Creating presets* on page 50) you can use the Effects window to swing between them.

To swing between two presets:

1. In the Programmer Fixture window, select the fixtures you want.

2. Click the SmartFX button on the toolbar. Vista displays the Smart Effects window.

3. Click the New button to display the Add New Effect window and click the Presets tab:



You can use the buttons along the top of the window to filter out the various types of preset (e.g. to display only the colour presets). To do this click the 'X' button to turn off all of them, then click the icon for the preset type you want to display.

4. Select a preset from the list on the left (the 'A' preset), then choose one from the list on the right (the 'B' preset) and click OK to start swinging between the two presets. You can then adjust the settings of the overall effect using the controls (e.g. speed it up, spread it across, etc). See *Effect controls* on page 102 for details.

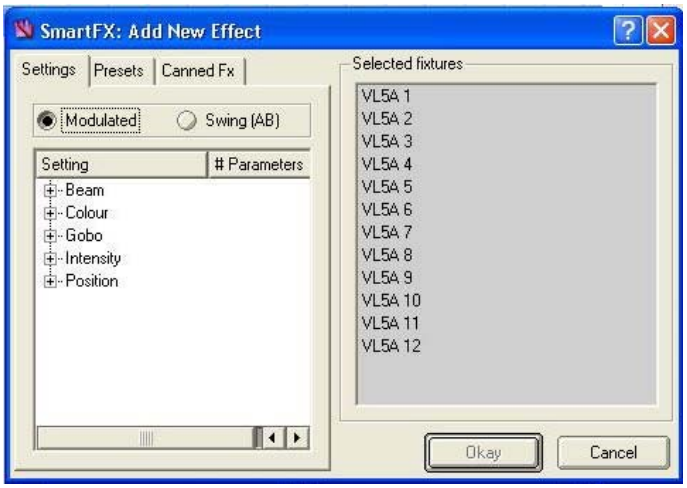
Creating an effect from scratch

To create your own effect:

1. In the Programmer Fixture window, select the fixtures you want.

2. Click the SmartFX button on the toolbar. Vista displays the Smart Effects window.

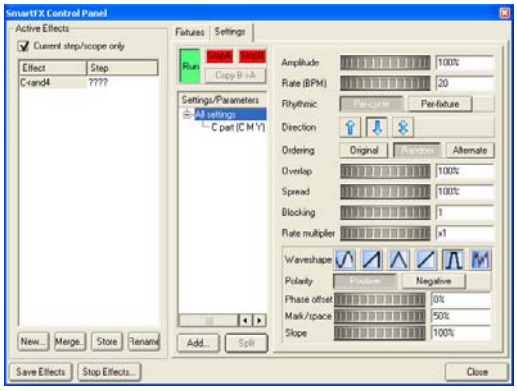
3. Click the New button to display the Add New Effect window and click the Settings tab:



4. Choose the parameter you want to put an effect on (e.g. position) and click either the Modulated or Swinging button at the top of the window to determine the type of effect you are going to create.

   'Swing' creates an effect that transitions from one setting to another, while 'Modulate' varies the attributes of one setting (e.g. creating a circle or figure of eight around a single position).

5. Click OK display the selected parameter in the Settings/Parameters box:



6. Click on the parameter and adjust the controls to apply the effects you want (see *Effect controls* on page 102).

Making your effect swing

If you chose the 'Swing' button in the Settings tab, you have to define the end points of the effect (i.e. where it starts and where it finishes).

In this case, when you click OK, Vista adds 'Stop A' and 'Stop B' buttons at the top of the Settings/Parameters box.

To define the two end points:

1. Click the 'Stop A' button.
2. Use either the palettes or the controls to define a setting.
3. Click the 'Stop B' button and define its settings in the same way.
4. Click the 'Run' button to start the effect swinging.

Copying the swing start or end setting

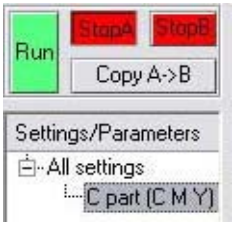
When you're making a swing effect it's often useful to copy the start setting so that you can use that as the basis for the end point. For example if you want to make some lights swing between two positions that are close together it will be quicker to set the A position then copy it to the B position then adjust that position.

To do this:

1. Click the 'Stop A' button.
2. Use either the palettes or the controls to define a setting.

3. Select the Parameter from the Settings list.

4. Click the 'Copy A-> B' button. Vista copies the A setting to the B position:



5. Click the 'Stop B' button and adjust the setting as required.

Saving your effect

To save an effect you've created:

1. Click the Save Effects Button. Vista displays a small window asking for a name for the effect.

2. Type a name for the effect and hit the Enter key on the keyboard. Vista adds your effect to the list of stored (canned) effects. Next time you click the Stored (Canned) FX tab on the Effects window, your effect will be in the list.

Modifying effects

To add or change the features of an effect, click the Add button below the Settings/Parameters box and choose the additional effect you want from the list. Vista adds it to the list of attributes in the Settings/Parameters box. You can then select any of these and adjust them using the controls (see *Effect controls* on page 102).

Splitting out effects

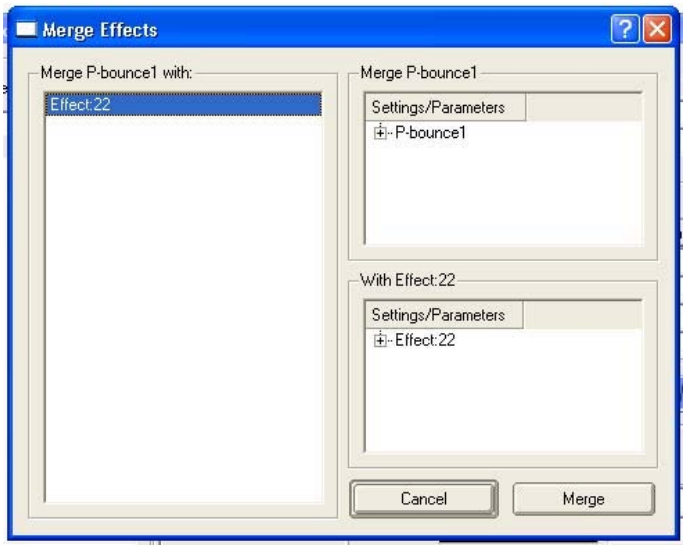
Once you've added several effects you may want to take or more of them out and make them separate effects in their own right. To do this, click on the effect you want in the list in the Settings/Parameters box and click the Split button. Vista removes that effect from the Settings/Parameters box and adds it to the effects list on the left-hand side of the screen. It's now a separate effect that applies to the same set of fixtures.

Merging effects

Once you have two or more effects applied to a clip you can merge them into one. You might want to do this to combine a set of 'building block' effects and save them all as one effect. Note that you can only merge effects within a single step.

To merge two or more effects together:

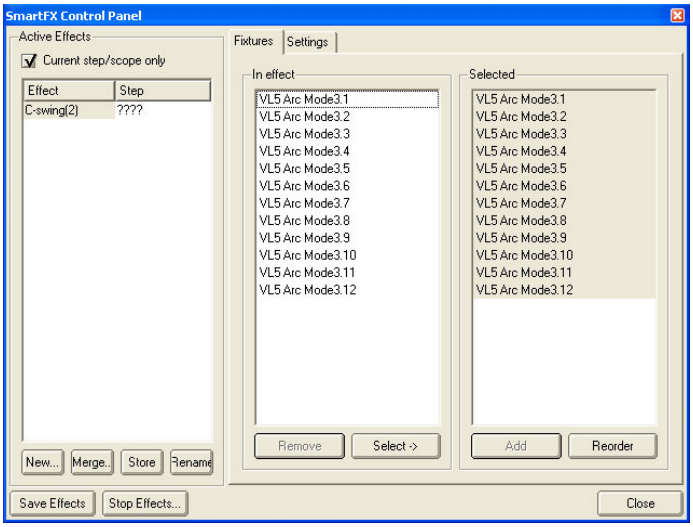
1. In the Effects list, choose an effect you want to merge and click the Merge… button. Vista displays the Merge Effect window:



2. From the list in the Merge Effects window, choose the effect you want to merge your selected effect with, then click the Merge button. Vista combines the first effect you selected with the second.

Reviewing effects

The FX Control Panel has three panes: the effects list, active effects and selected fixtures:



The effects list displays all the effects you've applied to the entire clip. When you click on an effect in this list, Vista displays the fixtures this effect is applied to in the Active Effects list in the centre. The Selected Fixtures list on the right always shows whatever fixtures are currently selected in the Fixtures window.

To see which effects are applied to a particular step of a clip, click the 'Current step only' checkbox at the top of the Effects window. With this box checked, Vista displays only the effects that are applied to the current step of the clip. This is a quick way to work out what effects are happening at any given moment in a clip.

Effect controls

The SmartFX Control Panel contains the following controls:

This option…	does this…
Amplitude	For modulated SmartFX each setting parameter can be assigned its own values for Amplitude. For swing effects then there is only a single set of parameter controls (since there is only one waveform being generated): • For modulated - affects how much of the waveform is added to the relevant parameter. • For swing - affects the extent of the swing centred between the A & B endpoints, i.e. only a value of 100% would reach the endpoints.
Rate	This is the base rate at which the effect runs, expressed in beats-per-minute (BPM). The resultant rate achieved over the targeted fixtures depends on the *Rhythmic* control (below).
Rhythmic	This control affects whether the *Rate* is based on cycles-per-minute or fixtures-per-minute: • Per-cycle - if the effect is an intensity chase at a *Rate* of 20BPM *Per-cycle*, then the whole sequence will repeat 20 times each minute. • Per-fixture - if the chase is at a *Rate* of 80BPM *Per-fixture*, then the chase will cover 80 fixtures each minute. The loop time of a *Per-fixture* effect varies with the quantity of fixtures used, and is slower with more fixtures. Note that the fixture-to-fixture rate (e.g. a flash rate) will be constant no matter now many fixtures are used.
Direction	Mainly useful for chasing effects, this controls whether fixtures are sequenced in ascending (down), ascending (up) or both directions (bounce).

This option…	does this…
Ordering	Controls how fixtures are ordered when calculating waveforms and can either be or: • Original - fixtures are treated in selection order. • Random -the order of fixtures is re-shuffled each time the effect loops • Alternate - fixtures are in original order but alternating fixtures have inverted modulation – e.g. can can
Overlap	This is one of the fundamental SmartFX controls and affects how much each fixture overlaps the next when executing the effect: • Overlap = 0% Each fixture executes the effect sequentially • Overlap = 100%) Each fixture executes the effect simultaneously. This control works in conjunction with Spread to achieve synchronized chases & wave effects (see below).
Spread	SmartFX dynamically calculate a waveform offset value for each fixture depending upon this control: • Spread = 0% - all fixtures have a uniform offset • Spread = 100% each fixture has a unique offset ranging from 0% to 100%. • Normally this control would be left at 100% if the Overlap control is anything except 100%, otherwise there will be periods where all fixtures will appear to be 'at rest'. See below for a simple SmartFX tutorial using Overlap & Spread.

This option…	does this…
Blocking	This control affects how the set of fixtures is grouped together. Normally this would be left at 1 to indicate that each fixture is calculated individually. This control either represents a fixed number of fixtures that are ganged together or it represents a proportion of the total fixtures for the block size. For example: • when set to 2, pairs of fixtures are ganged together (whatever the total number of fixtures used) • when set to 25% the total number of fixtures is divided into 4 groups (each block is 25% of the total count) – for a set of 12 fixtures then they'd be ganged in threes.
Rate Multiplier	To maintain synchronization between the parameters of a modulated effect, instead of specifying independent *Rate* values you can scale each parameters rate as a multiple of the base rate. If you need slower rates then set the base rate to lower value (e.g. ½ or ¼ of required rate) then set each parameter's rate multiplier accordingly.

This option…	does this…
Waveshape	There are six basic waveshapes available that can be combined with the *Polarity* and *Phase offset* controls to achieve many different waveforms. The six basic waveshapes are: • **Sinusoidal** Use a *Phase offset* of 0% to get an actual sine wave or a *Phase offset* of 25% to achieve a cosine wave. • **Ramp** The output value linearly ramps up to the end value then snaps back down to the start value. • **Pyramid** The output value linearly ramps from the start value to the end value and back down to the start value. • **Ramp-remain** Similar to *Ramp*, but the output value remains at the end value until the waveshape restarts (i.e. only effective for non-overlapped SmartFX). • **Rhomboid** This is a special-case waveshape that involves a couple of extra waveshape controls: *Mark/space ratio* and *Slope*, explained below. • **Ballyhoo** This is an extra-special waveshape that is dedicated to the production of ballyhoo position effects. It is designed to achieve a pseudo-random movement on two parameters while similarly ensuring that at least one of the parameters moves by a significant degree (since purely random waveforms can easily move between two very similar values and not appear to move).

There are two common controls that affect all waveshapes:

This option…	does this…
Polarity	Affects whether the resultant waveform is normal or inverted (e.g. a normal *Ramp* would ramp up & an inverted *Ramp* would ramp down).
Phase Offset	This, in effect, 'rolls' the waveshape within its own window – e.g. a 0% Phase offset for a sinsusoidal waveshape would start and end at the midpoint while a 25% Phase offset would have the sinusoid start & end at the high point.

The following two controls only affect the Rhomboid waveshape and can vary it between a rhombus, a square and a pyramid:

This option…	does this…
Mark/Space Rhomboid waveshape only	This controls how much of the waveshape is spent on (high) versus off (low). Useful for strobe chases to affect the duration of each flash.
Slope Rhomboid waveshape only	This controls the slope between the off and on levels. A *slope* of 0% results in a snap change between low & high and a *slope* of 100% results in a linear change. Note that the duration of the linear change is limited by the *mark/space ratio*: if this ratio is not 50% then the linear slope is shortened (e.g. above 50% means more time is spend on than off and there will always be a resting period at the high level).

SmartFX Quick-start tutorials

Setup a small show with at least 10 fixtures and configure the Fixture or Tracking window so you can see all 10 fixtures at the same time.

Using Stored (Canned) Effects

1. Edit a new clip in the programmer.

2. Select the 10 fixtures open up the SmartFX Control Panel (SmartFX toolbutton).

3. Click New to open the SmartFX: Add New Effect dialog. The selected fixtures are shown on the right hand side (to confirm what will be affected).

4. Click the Stored (Canned) FX tab to display the library of stored (canned) effects.

5. Select an effect from the list and hit OK to insert the effect.

6. Repeat steps 3-5 to add effects for different features or to replace effects on existing features.

Stopping an Effect

To stop an effect and have the fixtures revert to their original or default values for the parameters that were running the effect you do this:

1. Edit the clip in the programmer.

2. Select the Step where you want to stop the effect, or create a new step

3. Select the fixtures and open up the SmartFX Control Panel (SmartFX toolbutton).
Note: Do not select the effect name in the 'Active effects' panel. Selecting the effect name here will automatically select the effect in the timeline and relocate the play head to that position.

4. Click the Stop Effects button. The 'Select Effects to Stop' window opens.

5. Select the Effect(s) you want to stop. The selected fixtures are shown on the right hand side (to confirm what will be affected).

6. Click the Stop button. Stop RTFX events will be added to the timeline.

SmartFX programming & playback fundamentals

To edit a new clip in the programmer, select the 10 fixtures and open the SmartFX Control Panel (SmartFX toolbutton), then:

1. Click New to open the Add New Effect dialog.

2. Click the Settings tab and select the Modulated button.

3. Open the Intensity branch to show the Intensity and Shutter items.

4. Select the Intensity item and hit OK to close the window. You should now see all fixtures' intensity modulating but only reaching about 25%.

5. Using the programmer's intensity panel set the intensity to 50%. You should now see the fixtures modulating between 25% and 75%.

6. Using the SmartFX Control Panel, click the Settings tab to view the SmartFX controls. If the controls appear disabled then click the new 'I-modulate' effect in the Active Effects pane on the left – the controls should now be enabled and should show the currently set control values.

7. Set the Amplitude to 100% to get the fixtures modulating between 0% & 100% intensity.

8. Step forward and set the new step to 20s duration (using either the duration controls on the toolbar or by dragging the step point out to 22s).

9. Ensure the same fixtures are still selected and then use the intensity control panel to track forward the programming into this step (hit the 50% intensity button on the percentage tab).

10. A new effect will appear in the Active Effects pane of the SmartFX dialog – click to select it on the controls.

11. Slowly move the Spread control up to 100% whilst observing the output (Tracking View/Wysiwyg etc.). Note how the effect changes to a wave pattern.

12. Leave the Spread control at 100% and then very slowly move the Overlap control back from 100% observing the output (n.b. this control is very sensitive so move slowly down to 90%). Note how the wave gets shorter – when the control is down around 60% only a couple of adjacent fixtures are on whilst all the remaining fixtures are 'resting'.

13. Move the Spread control back to 100% and leave Overlap at 100%.

14. Step forward to a new step and again set it's duration to 20s. Click the 50% button to track the programming forward again (ensure fixtures are still selected). Click to select the new effect at the bottom of the Active Effects list.

15. Set Overlap to 0% and note that the effect is now chasing from one fixture to the next.

16. Click the middle effect in the Active Effects list. The timeline should automatically select the relevant events in the middle step.

17. Set the Rate to 40BPM.

18. Press the SmartFX toolbutton to close the SmartFX control panel.

19. Use the transport controls to rewind the playhead to the start of the clip and play the first step to output the initial effect.

20. Press play to play through the second step and observe the output. The effect will smoothly transition from a 'flat' effect in to a wave and will gradually double in speed.

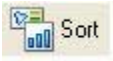
21. Play through the last step and observe how the wave duration gradually decreases together with the overall rate, until a single fixture chase results at the end.

Selecting and sorting fixtures in the timeline

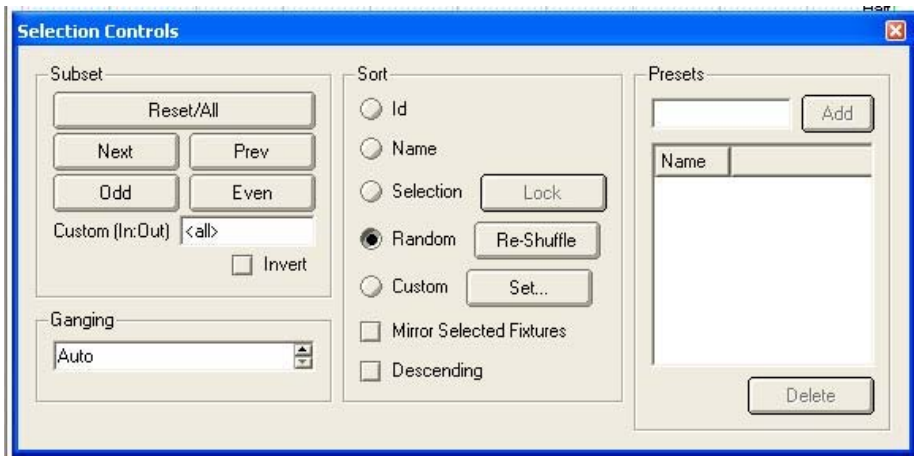
You'll often want to select particular fixtures and sort them in a certain way to achieve an effect (such as bringing lights up on each side of the stage and successively across the stage towards the centre). To make these sorts of effects you may need to sort or 'gang' your fixtures.

To select and sort fixtures:

1. Select the fixtures you want in the Programmer Fixture window. Note that if you want to sort them in particular order other than the obvious ones (such as beginning and end), choose them in that order now.

2. Press the Sort 

icon on the Timeline screen to open the Sort window:



Selecting subsets of fixtures

When you drag the pen across the Fixture window and select a bunch of fixtures, you get a fairly broad selection. If you want to be more specific you can use the Subset pane of the Selection Control window to select a specific set of fixtures.

The subset selection controls are:

This button…	**does this…**
Next	Selects the next fixture in the list. If you have all the fixtures selected, this de-selects all but the first one.
Prev	Steps back in the reverse direction, selecting the previous fixture in the list.

This button…	does this…
Odd	Selects all the odd numbered fixtures (i.e. 1, 3, 5 etc). If you click it a second time it selects 2-on-2 -off (i.e. 1&2, then 5&6, 9&10). If you click it a third time it selects 4-on-4-off (i.e. 1-4, then 9-12, and so on).
Even	Selects all the even numbered fixtures (i.e. 2, 4, 6 etc). If you click it a second time it selects 2-on-2-off (i.e. 3&4, then 7&8, 12&13). If you click it a third time it selects 4-on-4-off (i.e. 5-8, then 13-16, and so on).
Reset/All	Reverts the subset to the original selection (all the fixtures you chose in the Fixture window).
Custom (In/Out)	In this field you can define how many are selected and how many are not. The first number is the number of fixtures *in* the selection, and the second is the number that are skipped. For instance, if you set this to 1:2, Vista selects fixture 1, de-selects 2&3, selects fixture 4, skips 5&6, selects 7, skips 8&9, selects 10 and so on (i.e. a setting of 1:2 selects fixtures 1, 4, 7 and 10, while a setting of 3:4 selects fixtures 1, 2 &3, skips 4, 5, 6 and 7, and selects 8, 9 and 10 and so on).
Ganging	Groups a number of fixtures together so that any action you take applies to them as a group, rather than individual fixtures. For example, it determines the number of fixtures selected when you use the other subset buttons. For instance, with Ganging set to 2, every time you click Next, it selects pairs of fixtures. It also affects the way changes you make on the timeline apply to the fixtures – any change made to ganged fixtures applies to the whole gang, not just one fixture. This is useful to do things like make fixtures come on in pairs.
Invert	This button inverts whatever you have selected. For instance if you have a custom selection of 5:2 it selects 2:5; if you have odd fixtures selected it selects evens.

Sorting fixtures

You can sort fixtures in a number of ways. To do this, select the fixtures then click the Sort. Vista displays the Sort window:

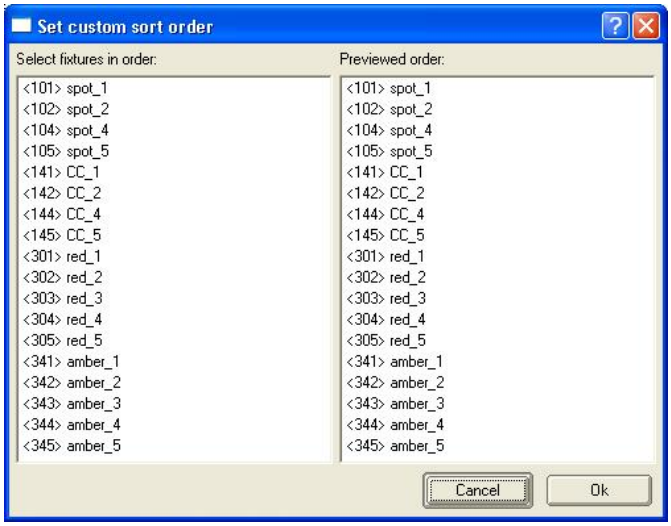
This option…	**sorts the fixtures in…**
ID	ID number order.
Name	alphabetical order.
Selection	the order in which you selected them on the Fixtures screen.
Random	random order. The Re-Shuffle button re-sorts the fixtures into another random order.
Custom	in any order you define. Clicking the Lock button defines the current selection as the Custom selection. Click the Set... button to displays the Set Custom Sort Order window. Click the fixtures in the left –hand pane in the order you want; the right-hand pane displays the selected order.

The Mirror Selected Fixtures checkbox puts the selection into the mirror image of whatever order you define. For instance if the fixtures are in the order 1-10, this changes the order so that the selection sequence becomes 1-10, 2-9, 3-8, 4-7, 5-6 instead of 1, 2, 3, 4, etc

The Descending checkbox sorts the selection in descending order based on the order you define.

Creating custom sort orders

The custom sort button displays the Set Custom Sort order window:



To sort fixtures in a particular order, select the fixtures in the order you want in the left-hand pane of the window then click OK.

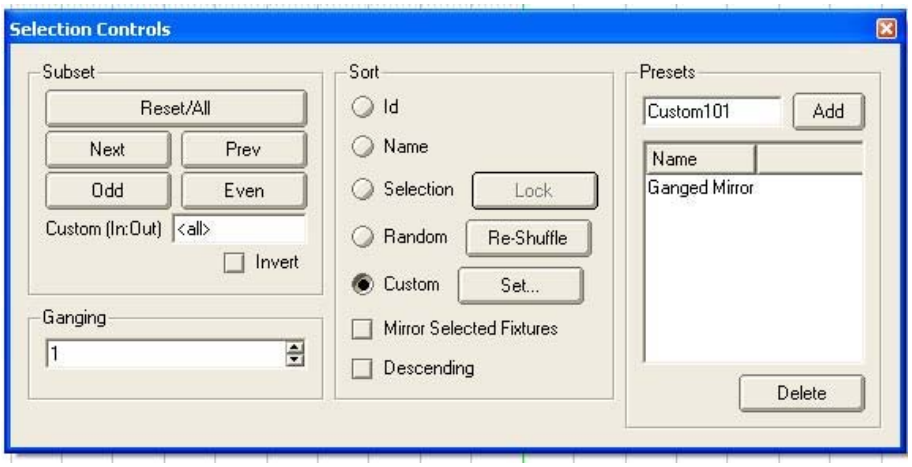
Saving and re-applying sort configurations

When you've set up a sort order that you like, you can save it so you can apply it to other groups of fixtures.

Saving sort methods

To save a sort method:

1. Click in the Presets name field:



2. Enter a name for the sort method.

3. Click the Add button to add it to the list of sorting methods.

To delete a saved sort method, select it from the list and click the Delete button.

Applying saved sort methods

To apply a sort method to a set of fixtures:

1. Select the fixtures then click the Sort button to display the Sort window.

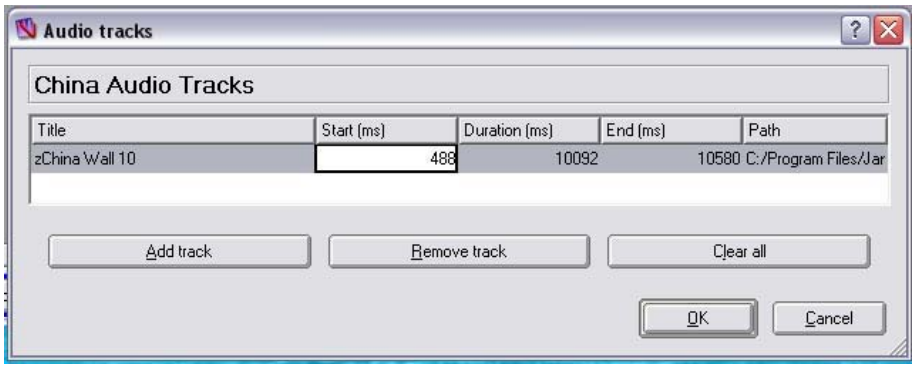
2. Click the Save tab.

3. Select the sort method you want from the list and click the Apply button.

Assigning audio to a clip

To assign audio to a clip:

1. In the Console window, right click on the Clip name and select 'Assign audio' option from the popup menu, or, with the Clip open, choose the 'Assign audio' option from the Tools menu in the Programmer. Vista displays the Assign audio window:



2. Click the Add track button . Vista displays a File:Open window.

3. Open the folder containing your audio files (normally the Audio folder inside the User-folder) and select a track. Repeat this step for each track you want to add to the Clip. Vista displays the names and attributes of the tracks.

4. If you want the audio track to start at a point after the beginning of the clip, click the Start field and enter the number of milliseconds delay you want before the audio starts.

5. Click OK to close the window. When you play this clip Vista plays the selected audio tracks with it, in the sequence and at the times specified. You can also move the audio track(s), in the Clip window, by holding down the yellow modifier (Ctrl) and dragging the audio bar.

Moving Tracks to another Clip

Occasionally, Clips get so large that they are difficult to work with and may affect the performance of the console. There is a limit of 30,000 events per clip; if you approach this limit Vista will provide a warning and you can choose to start a new Clip or re-locate some information to another clip.

To do this:

1. In the timeline view, select a group of fixtures (say all of one type) and right-click on the side Track tab.

2. Select a Track – Vista creates one new track at the bottom of the list.

3. The selected fixtures will be assigned to the selected track.

4. Select the 'Re-locate to a new clip' command under the Clip menu. The Re-locate Tracks window opens.

5. Select the track to re-locate and click OK. Vista creates a new Clip and imports the original clip programming for the selected track.

Ganging Clips to synchronise playback

If you've re-located tracks as described above it may be convenient to gang the original and new clip together so that they are synchronized during playback.

To do this:

1. Choose the Clip Properties option from the Edit. Vista displays the Clip properties window.

2. Click on the 'Ganging…' button at the bottom of the window. Vista displays the Ganging window:

3. Select the original Clip from the left hand column and the Clip to gang from the right hand column.

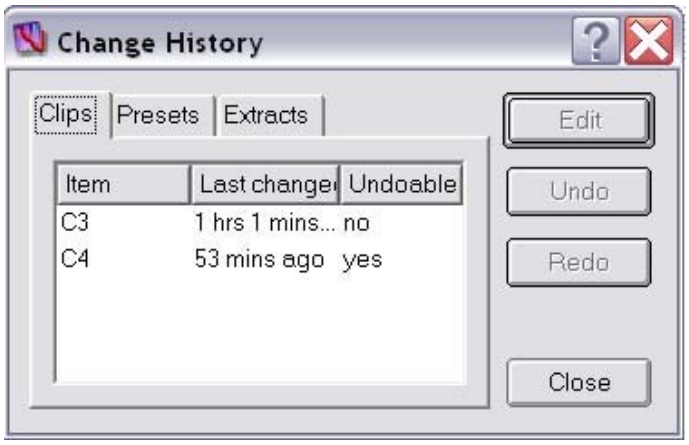
4. Click OK. The two Clips will now play back together when either clip is activated. It is not necessary to have both clips on a playback.

Changes history

Vista keeps track of changes you make, in the Programmer, using Store Live or in the Playback control window, to Clips, Presets and Extracts. The History window shows a list of items that have been modified and whether or not those changes can be undone.

This makes it easy to identify and undo recent changes particularly if the changes have been made using Store Live or in Playback control window without opening the programmer. Whenever there are changes that can be undone the History button changes to yellow.

Click on the 'History' button to display the 'Change History' window



To modify an item:

1. Select the Clips, Presets or Extracts tab.
2. Select the item you want to modify.
3. Click the 'Undo', 'Redo' or Edit button.

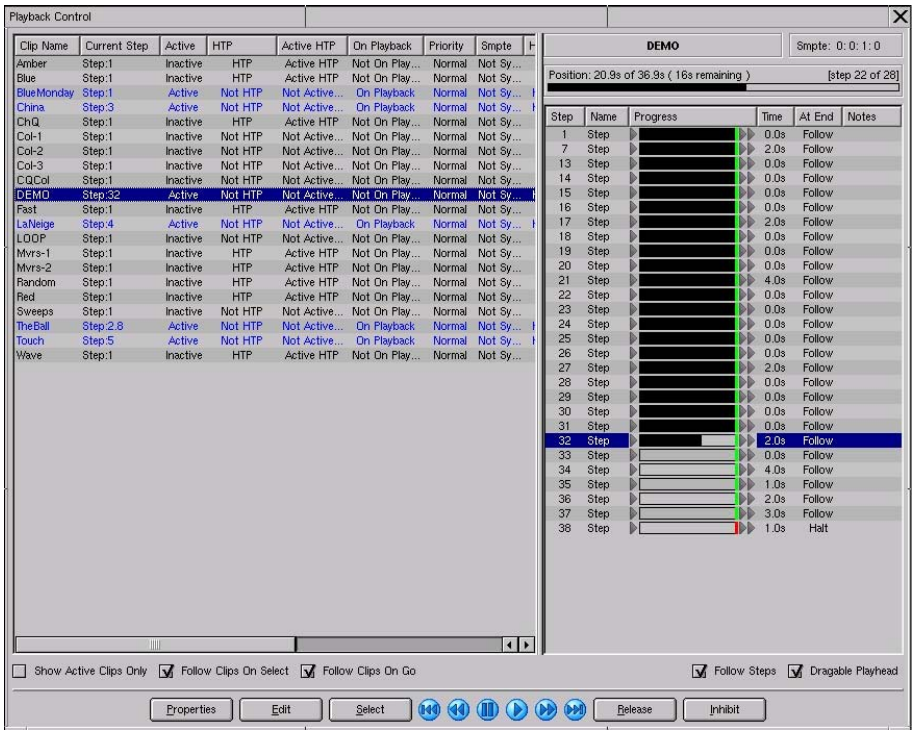
You can't undo changes after you save your show or save a clip, preset or extract that is open in the programmer.

The Playback Control Window

Control and Monitor Playback

When you've got a full show going it's likely that you'll have multiple clips on the console and being played back.

To see what's going on at any time, hit the Playback Control button on the toolbar at the bottom of the screen. Vista displays the Playback Control window:



This screen lists all the clips that are playing and gives you a handy point from which to control and edit them. The window is made up of two panes that can be resized by clicking on the vertical dividing line and dragging the divider to the left or right.

Clip pane

The left side of the screen displays a list of all Clips and can display up to twelve columns that show playback status and some clip properties.

This column…	**indicates…**
Clip Name	The name of the Clip. Active clips are shown in Blue text.
Current Step	Shows the current Step name and number. Clips that have not been run show the first step name.

This column…	indicates…
Active	Shows if the Clip is playing or has been played.
HTP	Shows the 'HTP Intensity' property setting.
Active HTP	Shows the 'Active HTP' property setting. The intensity, of an active HTP clip, activates as soon as the playback fader is moved above 0.
On Playback	Shows if the Clip is on a playback control.
Priority	Shows the priority of the clip.
SMPTE	Shows if the clip is set to be triggered by timecode.
Audio	Shows if the clip has any audio files assigned.
Release Time	Shows the clip's release time.
Inhibited	Shows if a Clip has been inhibited (made blind).
Notes	This column is for notes and comments. To add a note click, first click to select the clip, then click again on the notes cell.

You can sort the clip list by clicking on any of the column headings. For example to show all the clips that are on playback controls, at the top of the list, click on 'On Playback'. Click the column heading again to reverse the order.

You can resize columns by clicking between the headings and dragging the column to suit. To show or hide columns right-click in the Clip pane and select 'Show/Hide fields' from the popup menu.

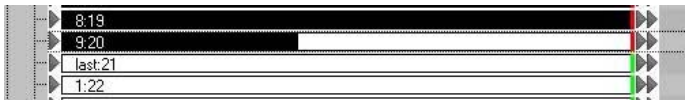
Step pane

The right column shows the steps in the clip selected in the left column and is divided into five columns that show step detail and progress:

This column…	indicates…
Step	Shows the step number.
Name	Shows the step name.

This column…	indicates…
Progress	Provides a visual display of the step's progress. The colour at the end of the bar indicates what will happen at the end of the step. Green indicates that the next step will follow on. Red indicates that the Clip will halt at the end of the step.
Time	Shows the elapsed time, time remaining and total fade time for the step. I.E. 1/5 [6] Elapsed time is 1 second Time remaining is 5 seconds Total fade time is 6 seconds
At end	Shows what will happen at the end of the step. Halt – the clip will pause until Go is pressed Follow – the next step will play automatically
Notes	This column is for notes and comments. To add a note click, first click to select the step, then click again on the notes cell

If the 'Dragable Playhead' option is ticked you can control a Clip's playback by clicking on the step progress indicator bars.



Click on the > button on the left side, of the bar, to play the step, click on the >> button to go to the end of the step or click anywhere in the step bar to jump to that point.

To prevent accidental triggering of steps uncheck the 'Dragable Playhead' checkbox.

Options

You can set the playback control window to automatically follow the selected clip and current step:

This option…	does this…
Show Active Clips only	Filter the left column to display only the clips that are being played.
Follow Clips on Select	When you press a Clip's 'Select' button that clip will be displayed in the right hand pane.
Follow Clips on Go	Whenever you press Go that clip is displayed in the right hand pane

This option…	does this…
Follow steps	Tick this checkbox to make the Step list scroll so that the current step is always visible.
Dragable playhead	If this option is ticked you can control playback by clicking on the step bars in the left hand pane

Control and Playback buttons

To take control of one or more clips, click on them to select them; you can then:

This button…	does this…
Properties	Displays the selected clip's properties.
Edit	Opens the selected clip in the programmer
Select	Equivalent to pressing the Select button for the highlighted clip.
	Jumps to the start of the clip
	Steps backwards to the previous Step marker of the selected clip
	Pauses playback of the selected clip(s)
	Commences (Go) Playback the selected clip(s)
	Steps forwards to the next Step of the clip
	Jumps to the end of the selected clip.
Release	Releases the selected clip – fixtures return to their previous settings:
Inhibit	Turns the selected clip off so that fixtures return to the settings defined by the previous event.

Editing in the Playback control window

There are two ways you change step names, times and end-of-step actions from within the Playback control window. You can:

- double-click on the Step Name, Time, At End setting or Notes field and edit the field directly.
- right-click on the Step Name, Time, At End setting or Notes field and select the 'Edit field of selected step(s)' option from the popup window.

To edit a field directly

1. Double-click on the Step Name, Time, At End setting or Notes field.
2. Enter a new name, time etc.
3. Press the Enter key.

To use the Edit field window

1. Select one or more steps. You can select a range of steps by using the shift or control key.
2. Right-click in the field that you want to change. Vista opens the Edit field window.
3. Enter a new name, time etc.
4. Click the OK button.

Customising the Playback control window

You can change the colours and fonts used in either pane of the playback control window to suit different conditions.

Changing colours

1. Right-click anywhere in the clip or step pane and select 'Change colours' from the popup menu.
2. Select 'Choose main background colour' or 'Choose other background colour' from the popup submenu to open the Select colour window.
3. Choose a colour from the basic colours or colour picker.

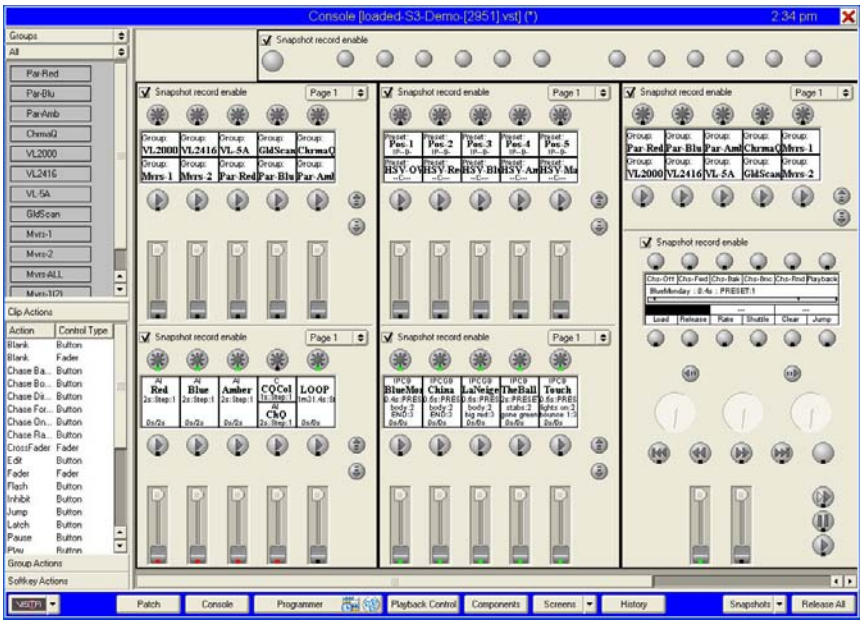
Changing fonts

1. Right-click anywhere in the clip or step pane and select 'Change font' from the popup menu.
2. Select 'Choose font' from the popup submenu to open the Select font window.
3. Choose a font, style and size.

Using the console hardware

Console layout

The Vista T series consoles and S series control surfaces provide the faders, encoders, switches and displays you'll need to control your lighting rig. The layout of each product is slightly different and the quantity of playback controls varies but they all provide the same control modules:



Pen tablet module

The Pen tablet module incorporates the main display, display controls, keyboard and trackpad for the T series consoles. For S series consoles the main display, keyboard etc are provided as part of the external computer.

Function keys

T series consoles provide twelve user-definable function buttons, located above the main display. S series consoles provide five function buttons located at the top centre of the unit. On the Vista PC version, the Function keys 'F1 – F5 or F1 – F12' can be used in place of these buttons.

You can assign many commonly used commands to these buttons so you have access to that function at the press of a button rather than having to choose the option from a menu or icon.

Examples of functions that you might find useful to assign to a function key include:

- save show
- release all active clips
- clear programmer
- store the programmer clip.

To assign a function to one of the function keys:

1. Click the Console button to display the Console screen. The function keys are at the top of the Console screen.
2. Click on the 'Softkey Actions' heading in the left hand pane.
3. Click on the required function and drag it on top of the button you want to use for that function. A tooltip will show what function you have assigned to the button. Now when you press that hardware button, Vista takes whatever action you've assigned to that key.

The following actions are available:

This action …	**does this…**
Blank (Button)	The button has no action.
Clear Programmer	Clears the current tab of the Programmer. You will prompted to save any unsaved changes.
Close window	Closes the current window.
Disable SMPTE synchronization	Toggles timecode on or off. Clips will not respond to timecode when disabled.
Extracts Browser	Opens the Components window with Extracts selected.
Fixture Chooser	Opens the Programmer window in the Fixture view.
Help	Displays the Vista help files.
Highlight fixtures	Toggles the Programmer's Highlight fixtures mode on or off.
Jump	Opens the Jump (to step) window.
Move to next display	Moves the current window to the next display. For example move the DMX window from the tablet display to an external monitor.
Next window	Opens the Components window with Presets selected.

This action …	does this…
Preset browser	Stops the clip playback, Intensity is reduced to 0 and all other parameters revert to their previous setting. Press the button again to enable or re-assert the clip.
Release all active clips	Releases all clips, fixtures return to their default settings.
Save show	Saves the show to disk.
Show console view	Opens the Console window.
Show keypad	Opens the virtual kepad – in the Patch and Programmer windows.
Store Programmer Clip	Opens the 'Store to Clip' window.

The modifier keys

The LR key

The **LR** button changes a pen tablet tap to a right tap. To 'right-click' hold this button down then tap the pen.

The coloured modifier keys

The coloured (Red, Yellow, Green, Blue) modifier buttons provide alternate functions while programming and during playback. You can also use keyboard equivalents in place of the modifiers

When you hold a modifier the playback buttons (Select, Go, Flash) provide alternate functions as shown below:

	Red (Shift)	Yellow (Ctrl)	Green (Alt)	Blue (Ctrl + Alt)
Select	Select	Edit	Release	Re-assert
Go (normal)	Pause	Skip Fwd	Skip Back	Jump
Go (split p'back)	Select	Edit	Release	Jump
Flash	Select	Edit	Release	Inhibit

Playbacks with faders

These controls are designed to be used when you need to be able to control the intensity of a clip during playback. They consist of:

- a Select button – normally used to select the playback
- a display – used to display the name of the clip or other component that's being controlled
- a Go button – normally used to play the the clip or other component
- a fader – used to control the intensity of a clip
- a flash button – normally used to momentarily flash the intensity of a clip to full.

Playbacks without faders

These controls are designed for simple control of a clip or other component. They consist of:

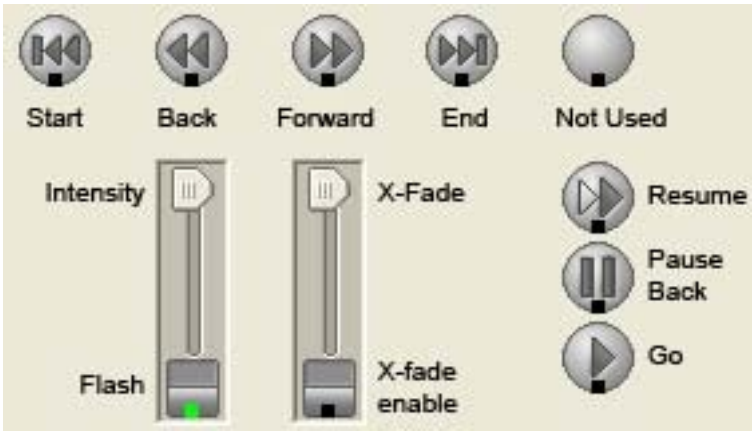
- a Choose button – normally used to select the playback
- a display – used to display the name of the clip or other component that's being controlled
- a Go button – normally used to play the clip or other component.

Page controls

Each playback module consists of 5 playbacks. Clips and other components can be assigned to these controls as pages. To change pages:

- press the Page Up button to advance to the next page number
- press the Page Down button to go back to the previous page number.

The Super Playbacks controls



These controls provide more extensive control for a single clip. They consist of:

- 7 playback control buttons - skip to start, skip to end, back, forward, Go, Pause / Back and Resume.
- an intensity fader and associated flash button
- a crossfader and associated enable button.

This button…	does this…
	Jumps to the start of the clip
	Steps backwards to the previous Step marker of the selected clip
	Steps forwards to the next Step of the clip
	Jumps to the end of the selected clip.
	Restarts playback on a paused clip
	Pauses playback of the selected clip(s)
	Commences (Go) Playback the selected clip(s)
	Not used
Flash	Flashes intensity of the super playback clip to the maximum value.

This button…	does this…
Crossfade enable	Enables and disables the crossfader. The led inside the switch will be red when the crossfader is enabled. In this mode the crossfader can be used to manually fade between steps.

Super Playback mode extended controls

These controls are used for both programming and playback. During playback they are used to provide additional control over a Clip. If the controls are in Programming mode press the button labeled 'Playback' to switch them. They consist of:

- twelve function buttons, described below
- a display – used to display the name of the clip and label the function button and encoders
- three encoders

This button…	does this…
Chase on / off	Turns chase mode on or off for the clip currently on the super playback.
Chs Fwd	Changes the chase mode to run forwards. If the clip is already chasing forward pressing the button will turn chase mode off.
Chase Bak	Changes the chase mode to run backwards. If the clip is already chasing backward pressing the button will turn chase mode off.
Chase Bnc	Changes the chase mode to bounce (i.e. run from first to last step then last to first step). If the clip is already bouncing pressing the button will turn chase mode off.
Chase Rnd	Changes the chase mode to random. If the clip is already in random pressing the button will turn chase mode off.
Playback	Press to toggle the controls between Playback and Programmer mode. When Playback mode is selected the label changes to be dark text on a white background.
Load	Press Load and then **any** button on the playback to load that Clip to the Super playback controls. If no button is pressed within 10 seconds the Load button is cancelled.

This button…	does this…
Release	Releases the clip. Fixtures return to the previous settings or to their defaults.
Rate	Press to enable the middle encoder for playback rate control.
Shuttle	Press to enable the middle encoder for manual control of playback. Move the encoder clockwise to advance and anti-clockwise to go backwards.
Clear	Press to clear the superplayback controls – the clip is removed from the controls.
Jump	Used to jump from one step to another step out of sequence. Press jump then use the third encoder wheel to select the Step you want to jump to. Press Go to fade to that step.

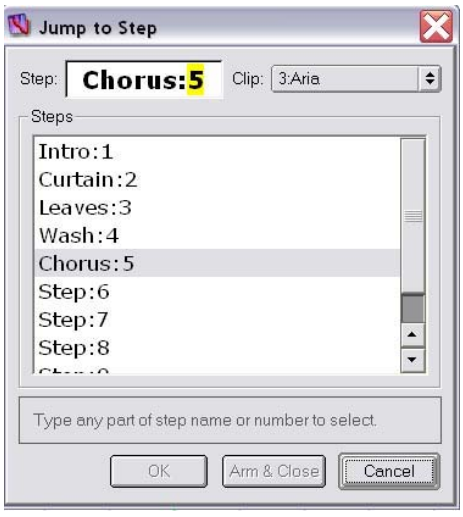
Using the keyboard to Jump

During playback you can use the keyboard and the jump window to quickly select a step and fade it in.

To open the Jump window you can either:

- press the Jump button in the super playback, or
- press and hold a Select button on any playback to bring that clip onto the super playback (the jump window will open after you start typing a number), or
- hold the blue modifier and press the Go button on any playback, or
- press Ctrl + J on the keyboard, or
- press the 'Jump' function button (if you have assigned it to one of the softkeys).

Vista displays the Jump to Step window:



To find the step you want to jump to:

- type the step number or a part of the step name, or
- use the up and down arrow keys, or
- click on the step name.

Tip: You can also select a different Clip by clicking on the drop down box

To complete the Jump and fade in the selected step;

- press the keyboard Enter key, or
- use the Clip's Go button, or
- click the OK button.

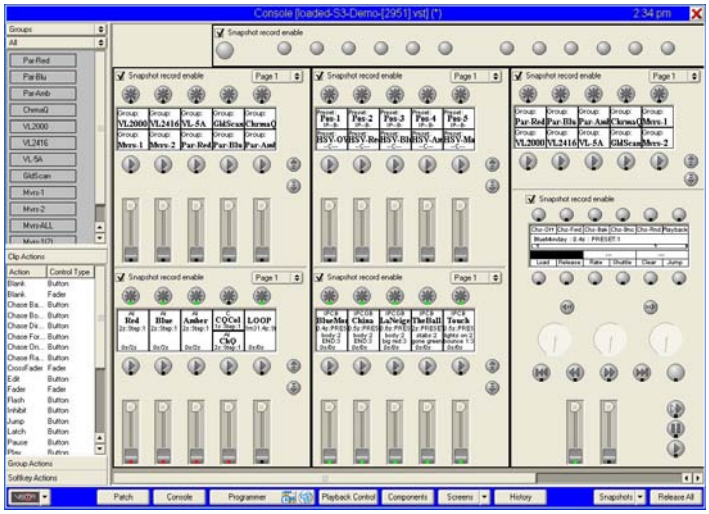
If you don't want to complete the Jump immediately click on the 'Arm & Close' button. This closes the window and leaves the clip ready to jump when you press Go.

Tip: You can also close the Jump to Step window by pressing Ctrl + J or the 'Jump' soft key again.

Configuring the console for Playback

Once you've stored a number of Clips, Presets, Extracts, etc, you can assign those components to the playback controls the way you want them using Console screen.

When you click the Console button on the toolbar Vista displays the Console screen:

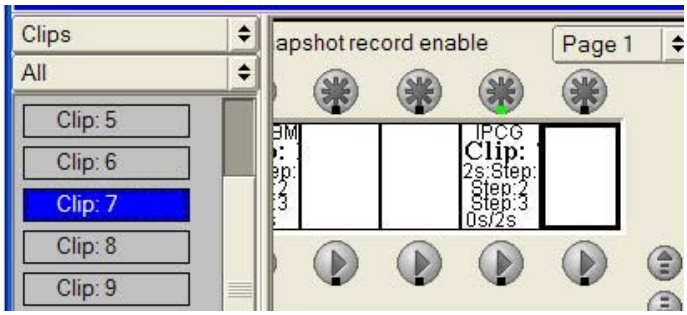


With the Component type and set dropdowns in the top-left corner of the window you can display and filter the components you want to assign. You can:

- choose a component type (Clips, Groups, Presets, Extracts, Smart FX, Snapshots) from the top dropdown
- filter the list by selecting a set from the lower dropdown. The sets correspond to any tabs you have created in the Components window.

Assigning a component to the playback controls

Once you've selected the component type you want you can drag and drop it onto the label area corresponding to the console's LCD windows:

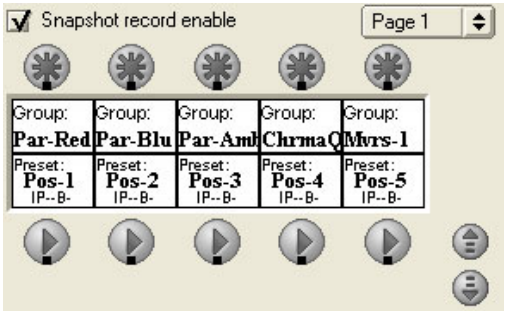


Tip: You can assign any combination of components to the playback controls – Clips, Groups, Presets, Extract, Effects, Favourites and Snapshots.

Splitting playback controls

When a component is assigned to a playback it uses all the controls that are available – the Go and Choose button plus the fader and flash button if available, but you can split a playback set to increase the number of components that can be placed on a page.

To do this, move the cursor to the top of the white label area. When the pointer changes to a split bar [=], click and drag down:

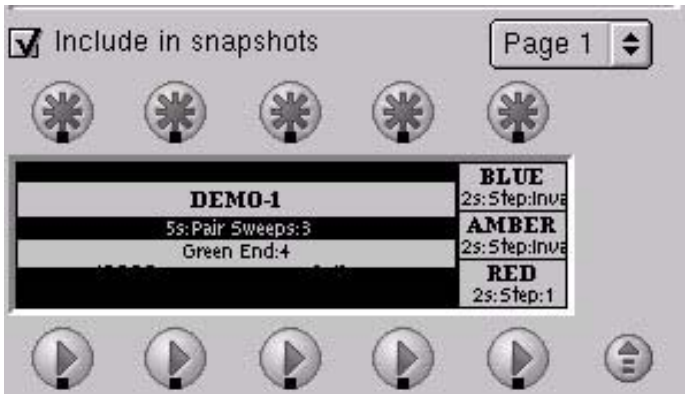


Playbacks with faders can be split three ways. To do this move the cursor to the middle of the label area. When the pointer changes to a split bar [=] click and drag down.

Tip: You don't have to split all the playbacks on a page the same way, you can split on two ways, another three ways and so on.

Expanding playbacks

Playbacks can also be extended to provide more physical button controls for playback of a clip. Up to five playbacks in the group can control a clip:



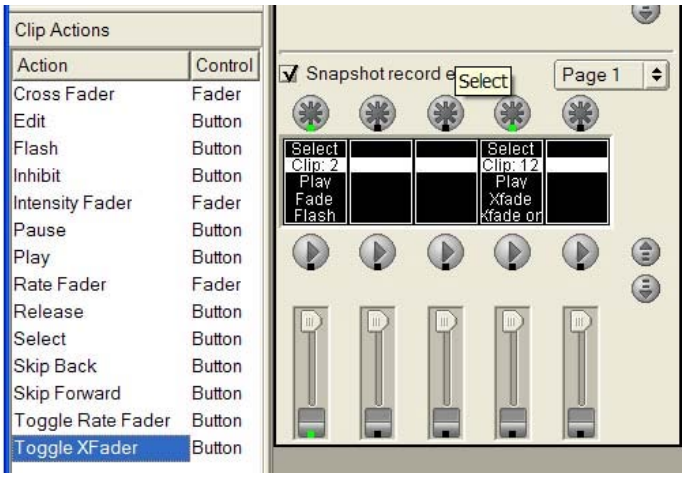
To expand a Playback move the cursor to the right side of the label area. When the pointer changes to a split bar [||] click and drag to the right.

Tip: You can expand a Playback before or after a Clip has been assigned, but you can only expand into an area that is not occupied by another component.

Configuring the playback buttons and faders

Normal, split and expanded playbacks have their buttons and faders set up with the default configuration. To see how the buttons and faders are configured press the Help key [!] on T series consoles or the F1 key on a PC.

Vista displays the button and fader functions on the LCDs and in the Console window:



You can assign different actions to these buttons and faders to suit your requirements or playback style.

To assign an action:

1. Click the Console button to display the Console screen.

2. Click on the 'Clip Actions' heading in the left-hand pane.

3. Click on the required button or fader action and drag it on top of the button or fader you want to use for that function.

Some buttons and faders must be used together. For example if you make a fader a 'Cross fader' you should also assign a 'Toggle Xfader' button to the button below the fader. Likewise if you make a fader a 'Rate fader' you should also assign a 'Toggle rate fader' button to the button below the fader.

The following actions are available:

This action (type) …	**does this…**
Blank (Button)	The button has no action.
Blank (Fader)	The fader has no action.
Chase Backward (Button)	Sets the Chase direction to backwards (or reverse). N.B. if the chase is already running backwards the button will toggle between chase off and chase backwards.
Chase Bounce (Button)	Sets the Chase direction to bounce. N.B. if the chase is already bouncing the button will toggle between chase off and chase bounce.
Chase Direction (Button)	Cycles between the available chase directions in this order: Forward, Backward, Bounce, Random.
Chase On/Off (Button)	Toggles between Chase on and Chase off.
Chase Random (Button)	Sets the Chase direction to random. N.B. if the chase is already set to random the button will toggle between chase off and chase random.
Cross Fader (Fader)	Sets the fader to manually crossfade between steps. Must be used in conjunction with a 'Toggle Xfader' button.
Edit (Button)	Opens a Clip, for editing, in the Programmer window.
Fader (Fader	Sets the fader to control the Intensity of a clip. This is the default assignment for all faders.
Flash (Button)	Sets the button to momentarily flash Intensity to full. This is the default assignment for the square buttons below the faders.
Inhibit (Button)	Stops the clip playback, Intensity is reduced to 0 and all other parameters revert to their previous setting. Press the button again to enable or re-assert the clip.

This action (type) …	does this…
Jump (Button)	Opens the Jump window. *See Using the keyboard to Jump* on page 127.
Latch (Button)	Similar to a flash button but latches on intensity or off. Press once to turn on press again to turn off. N.B. Clip properties should be set to Activate on flash and deactivate on flash.
Pause (Button)	Pauses playback of a clip.
RateFader (Fader)	Adjusts the playback rate.
Re-assert (Button)	Re-asserts a clip that has been overridden.
Release (Button)	Releases a clip.
Select (Button)	Selects the clip. This is the default assignment for all * buttons.
Skip Back (Button	Steps backwards to the previous Step marker of the selected clip.
Skip Forward (Button)	Steps forwards to the next Step of the clip.
Solo (Button)	Works in the same way as a flash button but will also reduce the level of all other active clips to zero.
Solo / Latch (Button)	Similar to a Solo button but latches intensity on or off.
Toggle Rate Fader (Button)	Must be used in conjunction with a Rate fader. Used enables the fader.
Toggle Xfader	Must be used in conjunction with a Cross fader. Used enables the fader.

Tip: You can save the button / fader configuration as a default to be used whenever a clip is assigned to a playback. To do this right-click on a clip and choose the 'Save as default configuration for clips' option.

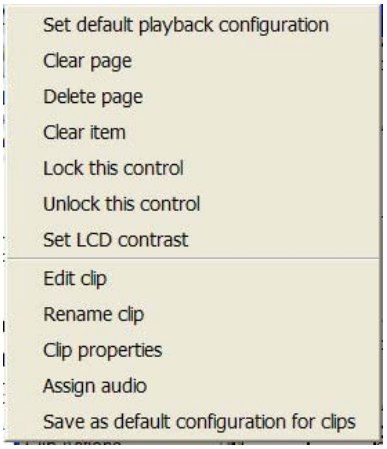
Playback status indication

For Clips the LCD and LEDs inside the playback buttons indicate the current status of each playback as follows:

	Normal (2 Button Playback)			**Split (1 Button Playback)**
	Lower Button	Upper Button	LCD	Button
Current			Inverted	
Active		Green		
Paused	Green Flashing			Green Flashing
Running	Green			Green
Completed	Red			Red
Overridden		Red Flashing		Red Flashing

Playback popup menu

You can make changes to Clips Pages and other components using the Playback context menu. To open this menu right-click on the label area of any playback control. Vista displays the context menu:



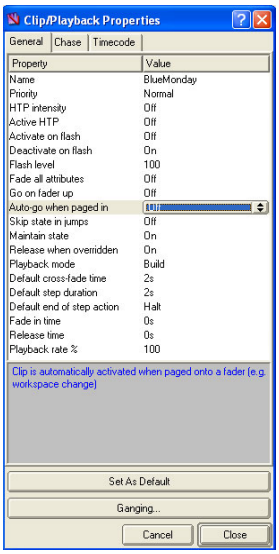
This option…	**does this…**
Save as default configuration for clips	Sets the selected clip's properties as the defaults for all new clips.
Assign audio	Opens the Assign audio window see *Assigning audio to a clip* on page 113.

This option…	does this…
Clip Properties	Opens the Clip properties window – see below.
Rename clip	Opens the rename Clip window.
Edit clip	Opens the Clip in the Programmer window.
Set LCD contrast	Opens the LCD contrast window for the selected display.
Unlock this control	Unlocks a component that has been locked in the selected position.
Lock this control	Locks the selected component. Components that have be locked will not be altered or replaced when a new Page or Snapshot is loaded.
Clear item	Clears the selected playback – the assigned component is removed from the control.
Delete page	Deletes the current page.
Clear page	Clears all playbacks on the current page – the assigned components are removed and a blank page is left.
Set default playback configuration	Sets the selected button and fader configuration as the default for new assignments.

Setting clip properties

To set the clip properties, right click on the Clip name and the Properties option from the popup menu. Vista displays the clip/Playback Properties window with the General tab selected:

General tab



This property…	does this…
Name	Sets the name of this clip
Priority	Sets the clip priority. A clip set to High priority can't be overridden by normal or low priority clips.
HTP Intensity	Determines whether or not the intensity overrides on the faders are calculated using highest-takes-precedence.
Active HTP	Causes the intensities of a clip's to activate as soon as the playback fader is moved from 0.
Activate on flash	Activates (plays) a clip whenever you press the flash button.
Deactivate on flash	Deactivates (releases) a clip whenever the flash button is released.
Flash level	Scales the Clip intensity when using the clip's flash button
Fade all attributes	Allows a Playback fader to control all attributes. Moving the fader up or down will cause Intensity, Position Colour, etc to fade in or out.

This property…	does this…
Go on fader up	Activates the Clip when the fader is moved above 0%.
Auto-go when paged in	Automatically activates the Clip when it is loaded to a playback fader by Page change.
Skip state in jumps	When playback jumps forwards, any events that lie fully between the old position and the destination are ignored.
Maintain State	If on, programming tracks forward though proceeding steps until it is either superceded or released. If off events are released in the following step unless they are repeated.
Release when overridden	If on, clips that are not contributing to the console's output are released.
Playback mode	Determines what happens when using Jump. Normal – restores the tracked state on Jump. Build – fades direct to destination excluding information in steps that are bypassed Video – fades via all events. .
Default Crossfade Time	The default time for Jumps & Overrides.
Default Step Duration	The default duration for new steps.
Default end-of-step action	Sets the default action for steps – Halt or Follow.
Fade-in time	The duration over which the clip fades-in when it starts.
Release (Fade-out) time	The duration over which the clip fades-out when it is released.
Playback rate %	Playback rate for the clip.

Chase tab

This property…	does this…
Chase mode	Turns chase mode on/off.
Chase direction	Sets the step order for chases. Can be set to forward, backward, bounce or random.

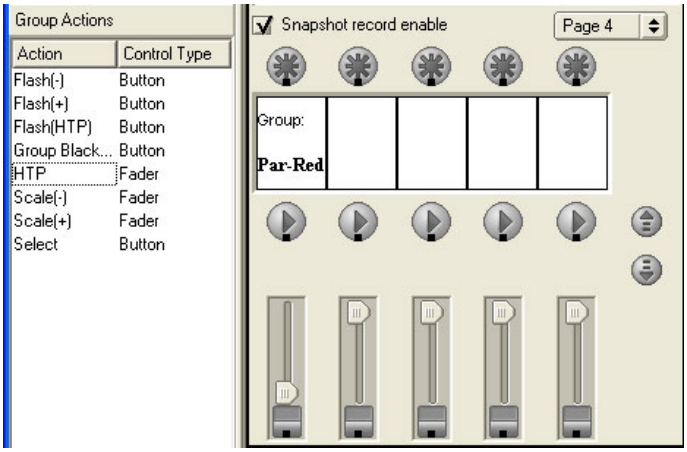
Chase rate	Chase rate when in chase mode, expressed as steps-per-minute.
Chase fade %	Proportion of time spent fading vs. time spent at each step of a chase.

Timecode tab

This property…	**does this…**
Start @ time	Sets the trigger time in Hours, minutes, seconds or frames.
Sync to Time	Turns on timecode triggering for this playback.

Group Masters

When a Group is assigned to a playback set, that includes a fader and flash button, you can use these controls as Group Master intensity controls:



The intensity of the group can be controlled in three ways:

With this Group master type	**you can do this…**
Scale (-) also known as an Inhibitive or Subtractive group master	Reduce the intensity of fixtures in the group. When a Scale(-) fader is pulled down, while a clip is being played, the intensity of fixtures in that group will be reduced. When a Scale(-) flash button is pressed the intensity of fixtures in that group will go to the level programmed in the active clip. This is the default fader and flash button setting for groups.

Scale (+) also known as an Additive group master	Increase the intensity of fixtures in the group. When a Scale(+) fader is pushed up, while a clip is being played, the intensity of fixtures in that group will be increased. When a Scale(+) flash button is pressed the intensity of fixtures in that group will go to 100%.
HTP Highest takes precedence	Control the the intensity of fixtures in the group on an HTP basis. If there's no clip, containing the fixtures in the group, being played the fader will set the level of the fixtures between 0 and 100%.

You can assign different actions to these buttons and faders to suit your requirements or playback style.

To assign an action:

1. Click the Console button to display the Console screen.
2. Click on the 'Group Actions' heading in the left hand pane.
3. Click on the required button or fader action and drag it on top of the button or fader you want to use for that function.

The following actions are available:

This action (type) …	**does this…**
Flash (-) (Button)	Flashes the intensity of the group to the maximum level programmed in any active clip.
Flash (+) (Button)	Flashes the intensity of the group to 100%.
Flash HTP (Button)	Flashes the intensity of the group to 100%.
Group Blackout (Button)	Lowers the intensity of the group to 0% while the button is held down.
HTP (Fader)	Increase the intensity of fixtures in the group. on an HTP basis. If there's no clip, containing the fixtures in the group, being played the fader will set the level of the fixtures between 0 and 100%.
Scale(-) (Fader)	Reduces the intensity of fixtures in the group. When a Scale(-) fader is pulled down, while a clip is being played, the intensity of fixtures in that group will be reduced.

This action (type) …	does this…
Scale(+) (Fader)	Increases the intensity of fixtures in the group. When a Scale(+) fader is pushed up, while a clip is being played, the intensity of fixtures in that group will be increased.
Select (Button)	When the Programmer window is open, used to select all fixtures in the group. When a group is selected the Led in the Select button will be red

Pages

Each Playback Group can be paged independently of the others, allowing for a wide variety of console configurations. To change pages, press the Up or Down arrow buttons located to the right of each playback group. On the console screen you can also select a page from the popup page selector.

The Page Up and Down buttons work in three ways:

- press quickly to change the page immediately
- press and hold, for less than two seconds to display the current page number, without changing it
- press and hold, for more than two seconds to scroll the number.

Locking a playback to prevent changing

Playbacks can be Locked to prevent whatever is assigned to that location being changed when a new page or snapshot is selected.

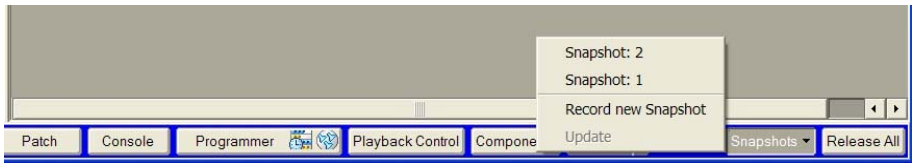
Components can be locked or unlocked in the Console window. To do this right-click on LCD, in the Console window, and choose the appropriate command from the popup menu.

Snapshots

Snapshots allow you to store and recall the exact state of the console's output, buttons, faders and other controls. They can be used to quickly re-configure the controls for playback, programming or a mixture of both. For example, you may have a snapshot set up for each song or part of a show. You might also have a snapshot for programming with the playback buttons assigned to provide quick access to Groups, Presets Extracts and Effects.

Snapshots can not only recall Page and Clip settings but also the state of the Clip. For example if a Clip is active and in Step 3 when the snapshot is recorded then the same state can be recalled.

To record, update or select a snapshot click the Snapshot selector at the bottom right side of the screen. Vista displays the snapshot popup:



To record a snapshot

1. Use the console window to assign components and configure the controls and pages the way you want them to be.

2. Tick the 'Snapshot record enable' checkbox(s) on the sections of the console that you want included in the snapshot.

3. The sections you can include or exclude are: the playback set(s), the superplayback(s) and function buttons.

4. Click on the snapshot selector and select 'Record new snapshot' from the popup menu. Vista displays the 'Record new snapshot' window:

This option…	does this…
Name	Create a name for the snapshot
No playback state	The state of clips is not included in the snapshot. For example a Clip active in Step 3 when the snapshot was recorded will be in a released state when recalled. Any clips that are running will not be released when the snapshot is recalled. This may mean that those clips are now running on non-visible pages.

This option…	does this…
Current page of record-enabled modules *This is the default setting*	The state of clips on the current page of each 'Record enabled' module will be included in the snapshot. For example if a Clip is active in Step 2 when the snapshot is recorded it will also be active in Step 2 when recalled. Any clips that are active on modules that were 'Record enabled' when the snapshot was recorded will be released. Clips that are active on modules that were not 'Record enabled' will not be released.
Entire playback state	The state of **all** clip except ones being edited are included in the snapshot irrespective of whether the 'record enable' boxes are ticked. I.E. clips on all pages plus clips that have been run from the Playback control window. All new clips created after the snapshot was recorded will be released. If a module is not 'Record enabled' the state of all clips on it is stored. However the page and clip assignment will not be recalled. This may mean that some clips are now running on non-visible pages.

Tip: Fader values are not stored in snapshots. Locked components are protected from any changes by snapshots. If a clip is part of a snapshot and it is also running on a module that will not be affected by the snapshot there can be a conflict.

In this situation:

- if the clip is active on the unaffected module, it is not changed
- if the clip is inactive on the unaffected module, it is restored to the state stored in the incoming snapshot (i.e.activated or released).

Recalling a Snapshot

To recall a Snapshot, click on the snapshot selector and choose the required Snapshot from the popup menu.

Updating a Snapshot

To update a Snapshot:

1. Make sure the snapshot is active.
2. Change the assignment and state of components and pages as required.

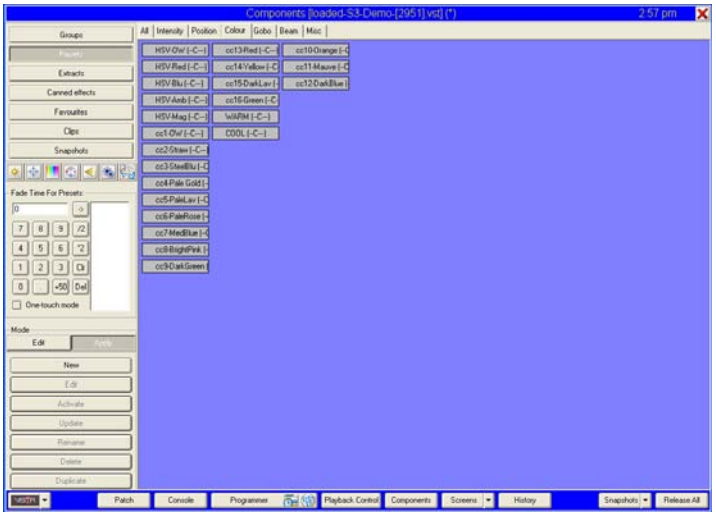
3. Click on the snapshot selector and select 'Update (snapshot name)' from the popup menu. Vista displays the 'Update snapshot' window. The same options as described above, in the record a snapshot section, are available.

Tip: You can also activate update and rename a snapshot in the Components window.

Organising and selecting Components

The Components Window

When you click the Components button on the toolbar, Vista displays the Components window:



This is where you can select and organize your Groups, presets, Extracts, Effects, Clips and Snapshots. The window is divided into different areas that allow you to:

- choose the type of component you want to work with – Groups, Presets, Extracts, Effects, Favourites, Clips or Snapshots
- choose a component and either activate it or modify it in some way
- create tabs that let you group components into custom sets.

This screen provides quick access to all the elements used for programming and playback of a show. To choose the component type you use the buttons at the top of the left column:

This button…	**does this…**
Groups	Displays all the groups you've recorded, in the right column.
Extracts	Displays your Extracts.
Canned Effects	Displays your Effects
Favourites	Displays your Favourites.
Clips	Displays your Clips.
Snapshots	Displays your Snapshots

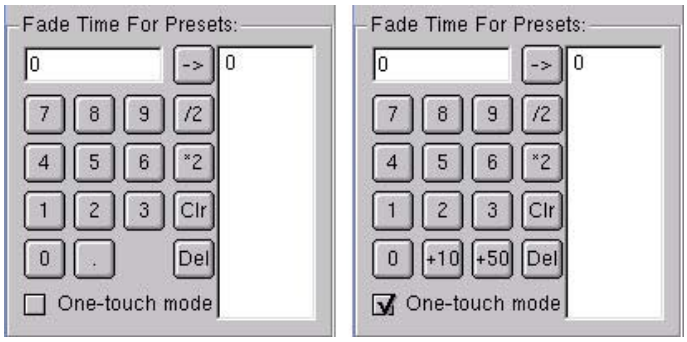
Preset parameter Filter and Fade Time panel

If you are working with Presets the Parameter Filter bar and 'Fade time For Presets' panel can be used to control any preset you store or use:

If you are recording a Preset the filter bar shows which parameters are being recorded and which are not. You can click on any of the icons to either include it or exclude it. Excluded parameters are greyed and have a cross though the icon. For more information about presets and filters see *Creating presets* on Page 50

If you are applying a preset that includes more than one parameter type you can use the filter bar to filter out any parameters you don't want to use. For example you might have a Preset that includes Intensity, Position and Colour but you only want to use the Colour part. In this case you would click on all the filter bar icons except Colour before selecting the preset.

When you are applying presets from the Components window you can also set a time for the Preset to fade in. For example you might be working in the Live programmer tab and want to fade some lights into a colour or position over several seconds. To do you use the Fade time For Presets panel:



This button…	**does this…**
0 – 9 & .	The numeric and decimal point keypad buttons. i.e. press 2 .5 for a time of 2.5 seconds.
->	Moves the time to the selector column. You can store a list of favourite times this way.
Clr	Clears the entry box.
Del	Deletes the last number entered.

This button…	does this…
One-touch mode	If this check box is ticked the numeric keypad changes mode. This mode is useful for quickly activating different presets in different times. Each time you press a number it replaces the previous value. This way you can press 5 then a preset to activate it over 5 secs. Then 2 followed by another preset to activate it over 2 secs and so on. Two new buttons +10 and +50 are enabled in this mode.
/2	Designed for use in one touch mode. Halves the time. i.e. 1 /2 gives a 0.5 second fade time.
*2	Designed for use in one touch mode. Doubles the time. i.e. 6 *2 gives a 12 second fade time.
+10	Designed for use in one touch mode. Adds 10 secs to the time. i.e. 1 +10 +10gives an 21 second fade time.
+50	Designed for use in one touch mode. Adds 50 secs to the time. i.e. 1 +50 gives an 51 second fade time.

Changing the Components window Mode

The Components window has two modes. In apply mode clicking on a component will activate it. In Edit/Organise mode clicking will only select the component – you can then select an option such as rename, delete etc. To change mode click on either the Edit /Organise or Apply button

Components window tools

At the bottom of Components window on the left hand there are 7 button that act on the component you select:

This button…	does this…
New	Creates a new component of the selected type. Applies to presets and Extracts only
Edit	Opens the selected component for editing. Applies to clips, presets and extracts.
Activate	Allows you to activate a component in the Organise mode
Update	Updates the selected component. Applies to clips, presets.
Rename	Allows you to rename a component.
Delete	Allows you to delete a component.

This button…	does this…
Duplicate	Allows you to create a copy of a component with a new name.

Organising Components

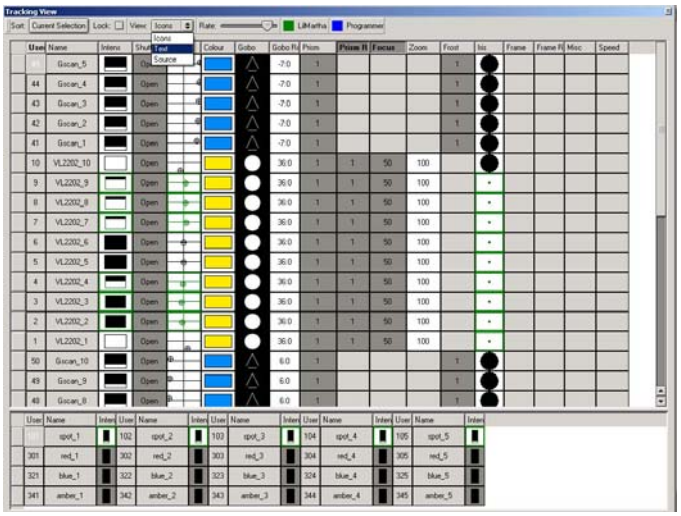
At the top of the Components window there is at least one tab marked 'All' and there may be others, depending on what component type is selected. For example if Presets is selected there are several tabs entitled 'Intensity, Position, Colour etc'. The All tab always contains all the components of the chosen type that you have created. These tabs allow you to organize components into sets.

To add another tab, right-click in the area to the right of the existing tab and choose the Add tab option. This creates a new tab along the top of the Components window. To rename the tab, click on it and enter a title.

In Organise/Edit mode you can drag and drop components from the All tab to other tabs so you can arrange your components in a meaningful way. You can also drag items into different columns or positions.

Monitoring what is going on

When you click the Screens button on the toolbar and select the Output option, Vista displays the Output window in icon view:

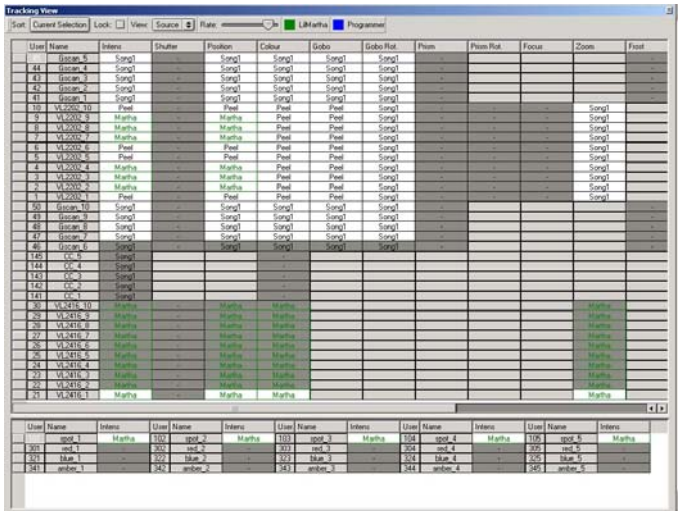


You use this screen to display the state of fixtures that are active – that is fixtures that have one or more parameters that are being controlled by the playbacks. The window is split vertically with multi-parameter fixtures displayed in the top pane and conventional fixtures (i.e. dimmers only) being shown in the lower pane.

Tip: To close the Output window, click the small 'X' box in the top-right corner of the screen's title bar. You can also resize this window by clicking on the bottom right corner and dragging to a suitable size.

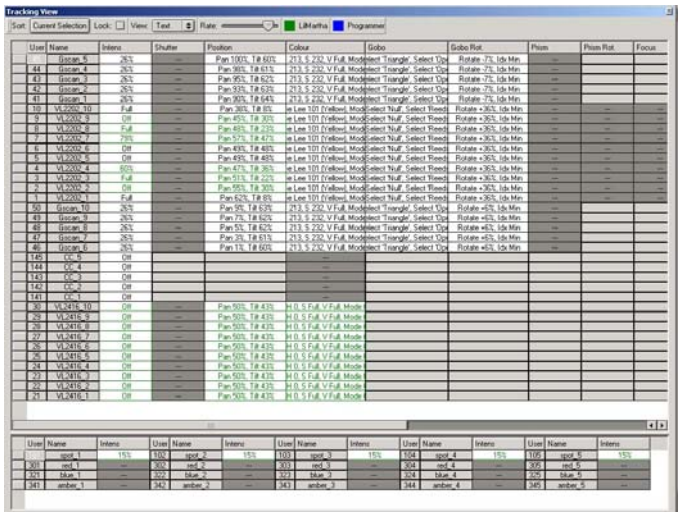
If you have external monitors attached, you can move the Output window to one of the by clicking on the title bar (blue area) and dragging. Use the touchpad to move the cursor to the external screens.

The Output window includes a drop-down menu that displays the Output information by, icon, text or source. The Output window set to Text view is shown below:



The text view shows the actual values of the parameters. If a parameter is set to a preset value, the name of the preset will be displayed rather than the value.

The Output window set to Source view is shown below:



The Source view shows the source of control for each of the parameters. For example if a fixture's colour settings have come from a clip named 'Rainbow', that name will be displayed in the Colour column for that fixture.

Using the Output window

The Output window provides some additional options that let you fine-tune the display and help identify particular fixtures

Scroll down the list until you find the fixture you want.

Sorting the Fixture List

If you click on the Sort 'Current Selection' button, fixtures that are selected in the Programmer Fixture window move to the top of the list. If you click in the Lock checkbox the sort order will be retained.

Setting the rate

You use the Rate slider to adjust how frequently the Output view updates. Move the slider to the left to slow the update rate and to the right to increase the update rate. On large shows with many fixtures and clips the Output window can use considerable system resources if set to the fastest refresh rate.

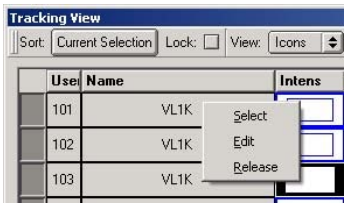
Chosen clip

To see what's being controlled by a particular playback fader, press the Choose button. The Output window then displays any information coming from that clip in green.

The Output window then displays any information coming from the programmer in Blue.

Context Menu

If you right click in an active cell on the tracking view window, Vista displays a pop-up menu:



Select

Chooses the playback that is currently controlling this feature.

Edit

Opens the clip that is currently controlling this feature in the Programmer.

Release

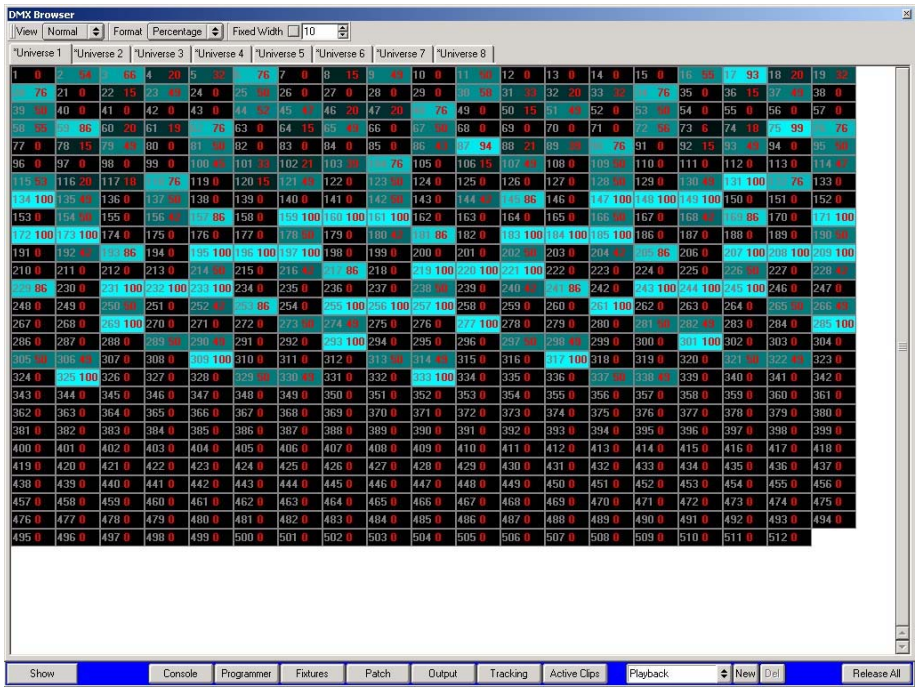
Releases the playback that is currently controlling this feature.

Selecting fixtures

If you click in the ID or name cell of a fixture in the tracking view window, Vista selects that fixture or adds it to the existing selection.

Using the DMX Window

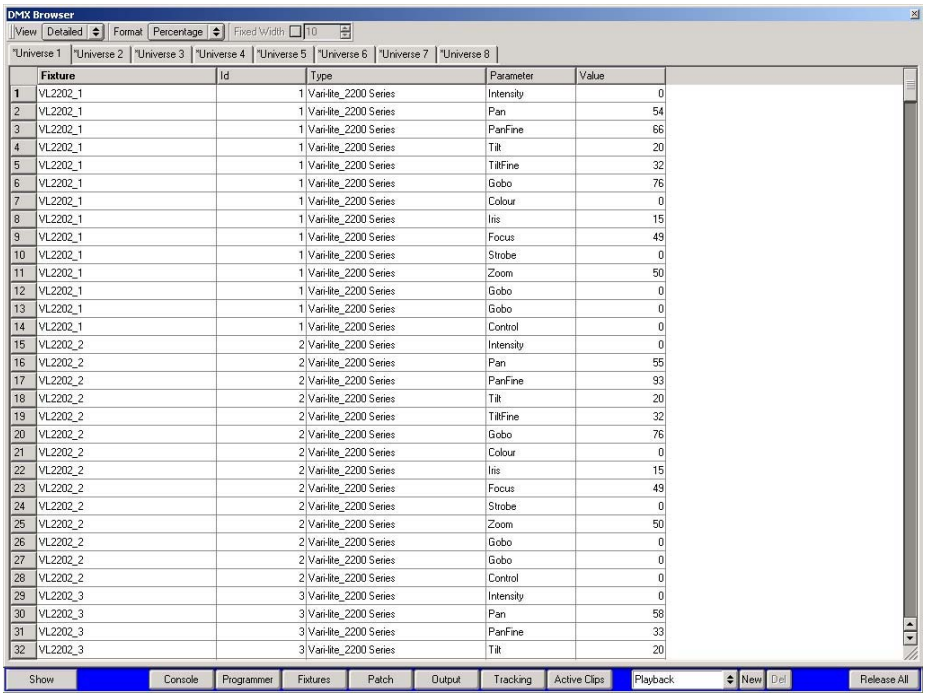
When you first click the Screens button on the toolbar and select the DMX option, Vista displays the DMX Output window:



You use this screen to display the output values of each and every DMX channel. The main window is divided into cells representing the 512 channels available on each DMX output. The cells are black if there is no output and change from dark to light blue as the output value increases. To display another output simply click on one of the other Universe tabs at the top of the display.

Tip: If you have external monitors attached the DMX window can be moved to one of these displays by using the 'Move to next display' softkey. This button is normally assigned to F10 on a T4/T2.

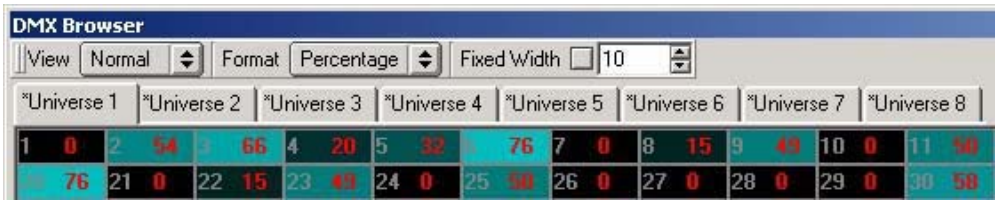
The DMX window includes a drop-down menu so you can view the DMX information in a more detailed list view. The DMX window set to detailed view is shown below:


DMX Browser
View Detailed Format Percentage Fixed Width 10
*Universe 1 *Universe 2 *Universe 3 *Universe 4 *Universe 5 *Universe 6 *Universe 7 *Universe 8
Fixture Id Type Parameter Value
1 VL2202_1 1 Vari-lite_2200 Series Intensity 0
2 VL2202_1 1 Vari-lite_2200 Series Pan 54
3 VL2202_1 1 Vari-lite_2200 Series PanFine 66
4 VL2202_1 1 Vari-lite_2200 Series Tilt 20
5 VL2202_1 1 Vari-lite_2200 Series TiltFine 32
6 VL2202_1 1 Vari-lite_2200 Series Gobo 76
7 VL2202_1 1 Vari-lite_2200 Series Colour 0
8 VL2202_1 1 Vari-lite_2200 Series Iris 15
9 VL2202_1 1 Vari-lite_2200 Series Focus 49
10 VL2202_1 1 Vari-lite_2200 Series Strobe 0
11 VL2202_1 1 Vari-lite_2200 Series Zoom 50
12 VL2202_1 1 Vari-lite_2200 Series Gobo 0
13 VL2202_1 1 Vari-lite_2200 Series Gobo 0
14 VL2202_1 1 Vari-lite_2200 Series Control 0
15 VL2202_2 2 Vari-lite_2200 Series Intensity 0
16 VL2202_2 2 Vari-lite_2200 Series Pan 55
17 VL2202_2 2 Vari-lite_2200 Series PanFine 93
18 VL2202_2 2 Vari-lite_2200 Series Tilt 20
19 VL2202_2 2 Vari-lite_2200 Series TiltFine 32
20 VL2202_2 2 Vari-lite_2200 Series Gobo 76
21 VL2202_2 2 Vari-lite_2200 Series Colour 0
22 VL2202_2 2 Vari-lite_2200 Series Iris 15
23 VL2202_2 2 Vari-lite_2200 Series Focus 49
24 VL2202_2 2 Vari-lite_2200 Series Strobe 0
25 VL2202_2 2 Vari-lite_2200 Series Zoom 50
26 VL2202_2 2 Vari-lite_2200 Series Gobo 0
27 VL2202_2 2 Vari-lite_2200 Series Gobo 0
28 VL2202_2 2 Vari-lite_2200 Series Control 0
29 VL2202_3 3 Vari-lite_2200 Series Intensity 0
30 VL2202_3 3 Vari-lite_2200 Series Pan 58
31 VL2202_3 3 Vari-lite_2200 Series PanFine 33
32 VL2202_3 3 Vari-lite_2200 Series Tilt 20
Show Console Programmer Fixtures Patch Output Tracking Active Clips Playback New Del Release All

The detailed view displays each channel on a separate line. In this view you can see the Fixture Name, ID, Type, Parameter Type and value.

DMX window features

The DMX Output window provides some additional options so you can fine-tune the display:


DMX Browser
View Normal Format Percentage Fixed Width 10
*Universe 1 *Universe 2 *Universe 3 *Universe 4 *Universe 5 *Universe 6 *Universe 7 *Universe 8
1 0 2 54 3 66 4 20 5 32 6 76 7 0 8 15 9 49 10 0 11 58
76 21 0 22 15 23 49 24 0 25 58 26 0 27 0 28 0 29 0 30 58

View

View options are detailed above – Normal or Detailed

Format

The format optional allows you to display output levels as either a Percentage (0 – 100%) or as an 8-bit value, between 0 and 255

Fixed Width

If this box is not ticked the Output window will automatically resize as the window is resized. For example if the window is made smaller, fewer cells will be displayed across the screen. If the box is ticked the window will always display the specified number of cells, across the screen, and it may be necessary to use the horizontal scroll bar to see all the cells.

Width

The value in this box sets the number of cells that displayed across the screen. You can either type a number in this box or use the small up and down arrows to adjust the value.

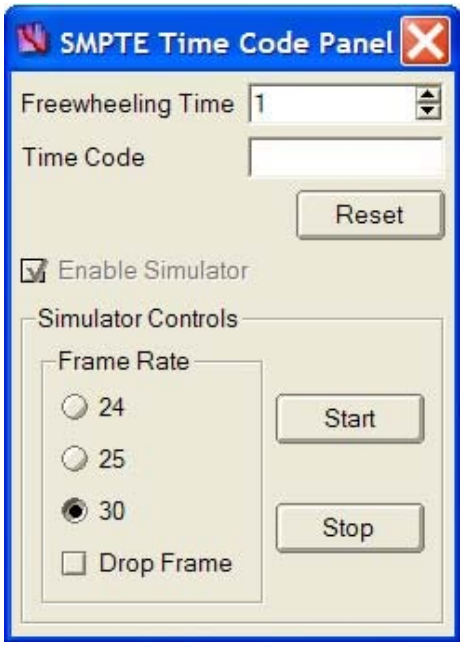
Setting preferences

Using SMPTE/timecode

If you are going to be running the Vista in conjunction with a device that generates SMPTE timecode, you can simulate the timecode so you can get your show running in time without needing the actual timecode from the other device.

To set up the timecode:

1. Choose the SMPTE/timecode panel option from the Show menu. Vista displays the timecode panel window:



2. Set the Frame rate and check the Drop Frame option if applicable.

3. Hit the Start button to start the timecode running and the Stop button to stop it. The Time Code field shows the elapsed time, and hitting the Reset buttons clears this field.

4. To close the window, click the 'X' symbol in the top right corner.

Timecode dropouts

The Freewheeling time field is used to cope with errors in the SMPTE code coming from an external device such as a Tape player. When Vista encounters a SMPTE error it will simulate timecode for a period before assuming the timecode has ended. This field sets the number of seconds Vista will allow to pass while it simulates SMPTE until it relinquishes control.

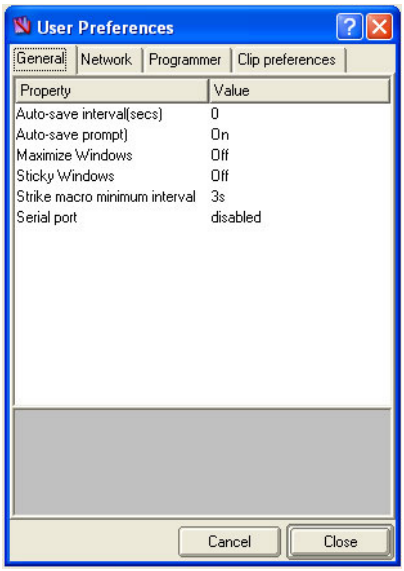
Disabling all timecode

To disable timecode for all clips, choose the Disable All Timecode option from the Vista menu. This can be useful is you want temporarily to stop timecode from triggering your clips.

User preferences

There are a number of system settings that determine how the Vista operates that you can change if you like. To set these preferences, choose the user preferences option from the Show menu. Vista displays the User Preferences screen with the 'General 'tab selected.

General preferences

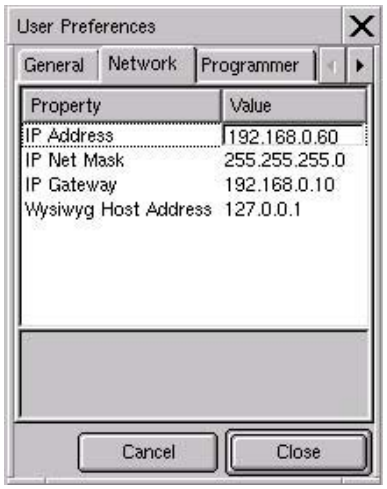


This option…	**does this…**
Enable Pen-tip button (n/a in PC version)	Switches on or off the button on the pen that you use to display the 'right-click' pop-up menu.
Auto-save interval	Sets the number of seconds that will pass between each automatic save of your current show. For instance, if you set this to 60, Vista will do an auto-save every sixty seconds. If you set this to zero, Vista does not do automatic saves.
Auto-save prompt	Sets whether or not Vista displays a prompt asking you if you want to do an automatic save. If this is off, Vista automatically saves in the background at the interval specified in the Auto-save interval field.
Audio Volume (n/a in PC version)	Sets the Audio output level.

This option…	does this…
Maximise windows	Sets the behaviour of the overlay windows (Output, DMX etc). With maximise set to ‘on’, the windows open full-screen.
Sticky windows	Sets the behaviour of the buttons located above the tablet when they are used to open the Components, DMX and Output windows. If ‘Off’ you have to hold the down to keep the window open; if ‘On’ the button toggles the window open and closed.
Strike Macro Minimum interval	Sets the minimum interval, in milliseconds, between fixtures being struck. When multiple fixtures are selected this setting creates a delay between each fixture striking.
Release-all on page change	Releases all running clips when you change the current page/workspace.
Serial Port	Sets the serial port configuration (I.E. 8N1-9600). Leave the field empty, or set it to 'disabled' to disable serial port control. Vista supports the following baud rates:1200, 4800, 9600, 19200 & 56000. If you change this you have to restart to make the change take effect.
Screensaver wait time n/a on PC version	Time in minutes until the screensaver starts. Set to 0 to disable screensaver.

Network preferences

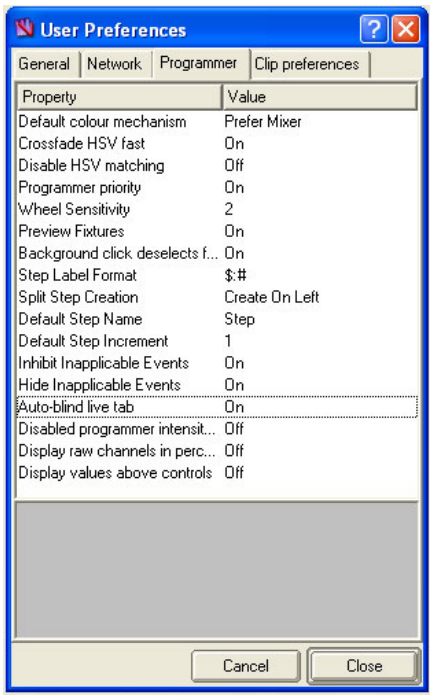
To set the networking preferences click the Network tab on the User Preferences screen:



This option…	**does this…**
DHCP	Allows Vista to obtain an IP address and other parameters from a DHCP server.
IP Address (n/a in PC version)	Sets the IP address of the Vista console, e.g. 192.168.0.65
IP Net mask (n/a in PC version)	Sets the subnet mask for the IP address, e.g. 255.255.255.0
IP Gateway (n/a in PC version)	Sets default gateway for the Vista. Used when the destination address belongs to someplace outside the local subnet.
VNC Password (n/a in PC version)	Sets the password required to connect to the console via VNC.
WYSIWYG host address	Sets the address where Vista will try to find a WYSIWYG host. Should be on the same subnet as the console, e.g. 192.168.0.10
Broadcast Artnet	When Broadcast Artnet is On any universe that is not connected to an output (DMX port etc) will be broadcast over ethernet.

Programmer preferences

To set the editor preferences click the Programmer tab on the User Preferences screen:

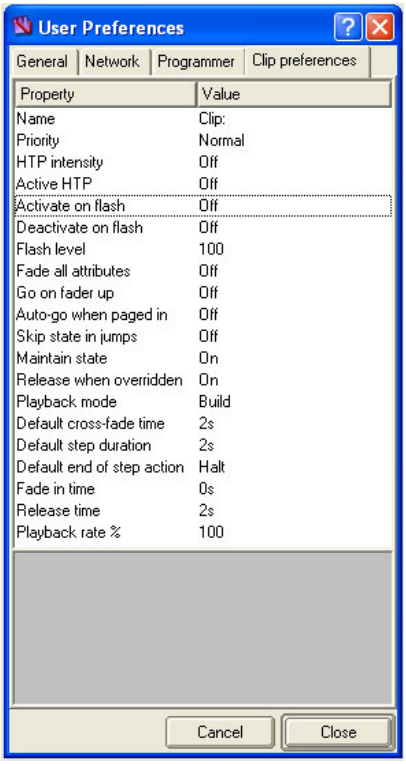


This option…	**does this…**
Default colour mechanism	Sets the default colour mechanism Vista uses when managing lights with colour wheels and colour mixers: • Automatic – uses the colour wheel for Lee colours and mixing for HSV • Prefer Mixer – uses colour mixing unless you select a colour wheel frame or colour • Prefer fixed - uses the fixture's colour wheel whenever possible.
Crossfade HSV fast	Determines whether or not a crossfade goes through the intervening hues (off) or jumps directly to the specified colour (on).
Disable HSV matching	Vista uses colour calibration data to help match colours between different fixture types. The data is only available for certain fixtures. Turn this setting On to bypass the colour calibration.
Programmer priority	Determines whether clips loaded in the programmer have high or normal priority. When set to 'high', any changes you make in the programmer while a clip is playing will override the normal playback.

This option…	does this…
Wheel Sensitivity	Specifies the number of turns of encoder wheels needed to cover the full range of the assigned parameter (a larger number results in finer control) Normally set to 2.
Preview Fixtures	Determines whether the Programmer Fixture window icons display Intensity, Colour, Position and other settings.
Background click deselects fixtures	When this is set to 'on', tapping on a blank space in the Programmer Fixture window de-selects all fixtures.
Step Label Format	Specifies the format of step labels in the programmer. The '$' symbol is replaced by the step name, and the '#' symbol is replaced by the step number. For example, given a step named 'Sunrise' numbered '1.1', the format '[#] $ ' results in the label ': [1.1] Sunrise'.
Split Step Creation	Specifies whether the new step is created to the left or right when you split a step.
Default Step Name	Specifies the default name for steps created in the programmer.
Default Step Increment	Specifies the default increment between step numbers. Normally set to 1.
Inhibit Inapplicable Events	If enabled, Vista won't create events that the selected fixtures can't perform. Inapplicable controls will be disabled.
Hide Inapplicable Events	If enabled, Vista hides events for parameters that a fixture can't perform. Note that this does not affect event creation; see Inhibit Inapplicable Events.
Auto blind Live Tab	Automatically sets the Programmer Live tab to 'Blind' whenever it is not selected. Useful when reviewing clips that have been exported from the Live Programmer.
Disabled Programmer Intensity Faders	If On, Super-playback intensity faders are fixed at full when in programmer mode.
Display Raw channels in percent	Normally raw setting are shown as a value between 0 and 255. Set this option on to show a percentage (0 – 100%) instead.

This option…	does this…
Display values above controls	Set this option on to display editable value fields above the sliders in the Programmer intensity, colour and beam palettes.

Clip preferences



This property…	does this…
Name	Sets the default name for new clips.
Priority	Sets the default priority for new clips. A clip set to High priority can't be overridden by normal or low priority clips.
HTP Intensity	Determines whether or not the intensity overrides on the faders are calculated using highest-takes-precedence.
Active HTP	Causes the intensities of a clip to activate as soon as you move the playback fader from 0.
Activate on flash	Activates (plays) a clip whenever you press the flash button.
Deactivate on flash	Deactivates (releases) a clip whenever you release the flash button.

Flash level	Scales the Clip intensity when using the clip's flash button.
Fade all attributes	Gives the Playback fader control of all attributes. Moving the fader up or down will cause Intensity, Position, Colour, etc to fade in or out.
Go on fader up	Activates the Clip when you move the fader above 0.
Auto-go when paged in	Automatically activates the clip when it is loaded to a playback fader by Page change.
Skip state in jumps	When playback jumps forwards, Vista ignores any events that lie fully between the old position and the destination.
Maintain state	The programmed state tracks forward through subsequent steps until superseded or released.
Release when overriden	Releases clips when they are no longer contributing to the output.
Playback mode	Determines what happens when using Jump. Normal – restores the tracked state on Jump. Build – fades direct to destination excluding information in steps that are bypassed Video – fades via all events.
Default Crossfade Time	The default time for Jumps & Overrides.
Default Step Duration	The default duration for new steps (in milliseconds).
Default end-of-step action	Sets the default action for steps – Halt or Follow.
Fade-in time	The duration over which the clip fades-in when it starts (in milliseconds).
Release (Fade-out) time	The duration over which the clip fades-out when it is released (in milliseconds).
Playback rate %	Playback rate for the clip.

Information about your Vista software

The 'About Vista' window displays the following information:

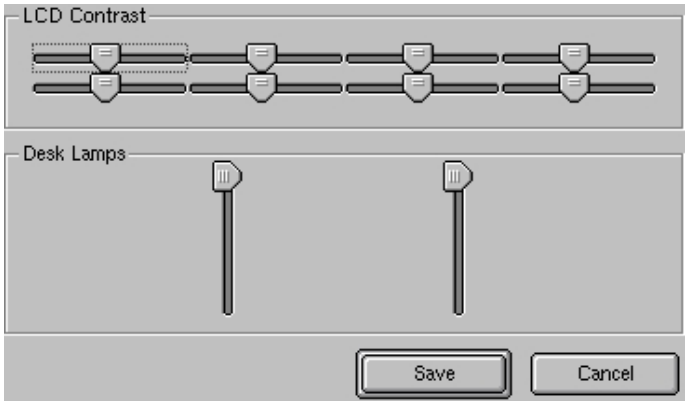
- Vista application version number
- Fixture library version number
- Firmware version number
- console's channel limit, as determined by the dongle.

If a show is loaded, this window also shows the application version number in use when the show was last saved.

Setting Desklight & LCD Contrast settings

There are settings for the Desklight(s) intensity and the Intensity and Contrast on the small blue LCDs. To set these preferences, choose the Desklights and Contrast option from the Vista menu.

Vista displays the Desklights and Contrast window:



Drag the sliders to set the required Intensity and Contrast.

Changing the console configuration

Vista automatically detects the console type and any wings you have connected when the programme starts up. You can also change the console configuration manually if you are working offline or want to add a virtual console.

To do this select the 'Change console configuration…' option from the Vista menu. Vista displays the console configuration window:

Tip: You can also display the 'Console configuration' window at any time by right-clicking in the Console window.

Select the console type that you want to add. New consoles appear in the console window.

If you are using multiple consoles only one Grand master can be active. You can set which console has the Grand Master by checking the 'GM enable' checkbox at the top of the console window.

You can delete a console by clicking on the 'Delete' button at the top of the console window.

Calibrating the Pen (console only)

Sometimes you may have to re-calibrate the pen. To begin calibration, choose the Calibrate Pen option from the Vista menu and follow the on-screen prompts.

Using the screensaver

Vista includes a screensaver that also turns off the backlighting on the small blue LCDs. To start the screensaver manually, choose the Start Screensaver option from the Vista menu. You can set the screensaver delay time in the User Preferences, General tab.

Using another language

Vista includes a number of alternate languages. To change language, choose the Change language option from the Vista menu.

Change the Fixture Library

Vista allows you to save alternate versions of the fixture library. For example you can save a library that only includes the fixtures you have patched. To change library, choose the Change library option from the Vista menu.

External window utility

Occasionally shows may appear to lose windows that were on external monitors. To reset these windows, choose the Recover External Windows option from the Vista menu. The windows will be relocated to the main tablet LCD where you can close or move them as required.

Date and time

Vista displays the time in the title bar of the Patch, Console, Programmer and Components windows. If you move your cursor over the time it converts to show the date. On T-series consoles you can set the date and time by clicking on the time to open the 'Set time and date ' window. On PC systems the operating system software sets the date and time.

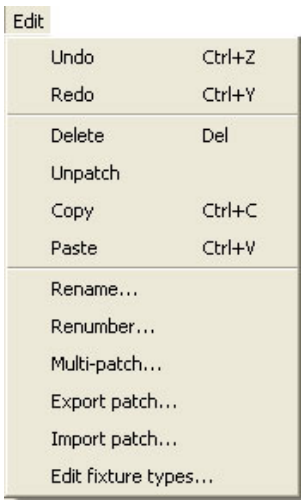
Appendix 1, Menu & toolbar reference

Patch screen menus

View menu

This menu has one option, 'Short Names'. Selecting this displays the abbreviated versions of the fixture names. Select it again to display the full names.

Edit menu



This option…	**does this…**
Undo (Ctrl+Z)	Cancels your last action.
Redo (Ctrl+Y)	Repeats your last action.
Delete (Del)	Deletes the selected fixtures.
Unpatch	Unpatches the selected fixture and moves it to the fixture pool
Copy (Ctrl+C)	Copies the selected fixtures.
Paste (Ctrl+V)	Not used.
Rename	Displays the Rename window so you can give the selected fixture a name.

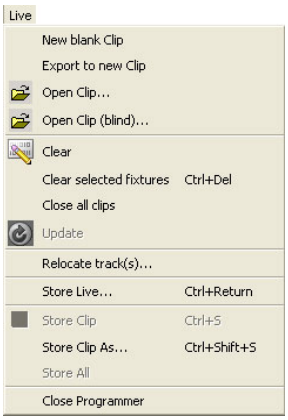
This option…	does this…
Renumber	Displays the Renumber window so you can change a fixture's ID number or set the starting number of a group of selected fixtures.
Multi-patch	Displays the Multiple patch window for adding fixtures with the same ID.
Export patch…	Displays the Export patch window.
Import patch…	Displays the Import patch window.

Control menu

This option…	does this…
Strike	Strikes the selected fixtures.
Douse	Douses the selected fixtures.
Reset	Resets the selected fixtures to their default settings.
Home	Sends the selected fixtures to their home position.
Park	Parks the selected fixtures so they won't move from their current position.

Programmer screen menus

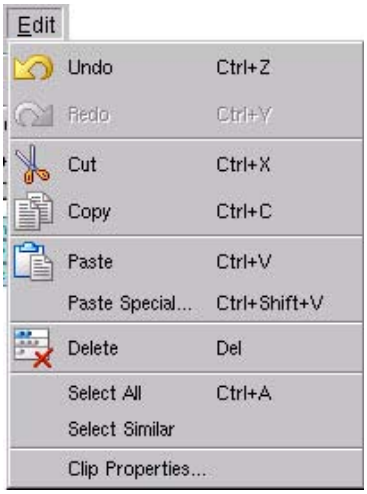
Clip / Live menu



This option…	**does this…**
New blank clip	Creates a new clip, opening the timeline window.
Export to new clip (from Live tab only)	Exports the contents of the Live tab to a new Clip.
Open Clip	Opens an existing Clip
Open Clip Blind..	Opens an existing Clip in Blind mode
Close	Closes the selected Clip.
Close all clips	Closes all open Clips
Clear (Live only)	Clears the Live programmer
Clear selected fixtures	Clears all settings from the selected fixtures
Update	Opens the update window so you can choose to update either a clip and / or any presets in use
Relocate tracks	Opens the Relocate Tracks to new Clip window so you can move all programming for fixtures in that track to a new Clip – see Appendix
Store Live… (Shift + Enter)	Opens the Store to Clip dialogue
Store Clip	Saves changes to the current clip.
Store Clip As... (Ctrl+Shift+S)	Displays the Store Clip As window so you can name and optionally assign a clip to a location on the console.

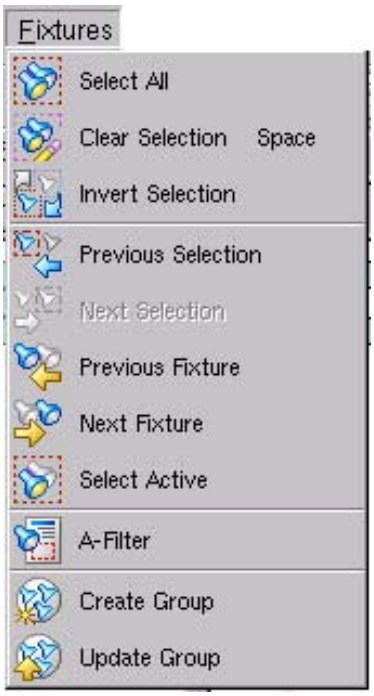
This option…	does this…
Store All	Saves all open clips.
Exit	Exits the Programmer window.

Edit menu



This option…	does this…
Undo (Ctrl+Z)	Cancels your last action.
Redo (Ctrl+Y)	Repeats your last action.
Cut (Ctrl+X)	Cuts the selected events.
Copy (Ctrl+C)	Copies the selected events.
Paste (Ctrl+V)	Pastes the selected events to the point on the timeline marked by the left-hand yellow marker.
Paste Special (Ctrl+Shift+V)	Displays the Paste Special window so you can choose which attributes of the event you copied to paste.
Delete (Del)	Removes the selected event from the timeline.
Select All (Ctrl+A)	Selects every event on the timeline.
Select similar	Selects every event that has similar characteristics (e.g. start and end points).
Clip Properties	Displays the Properties window so you can make adjustments to the selected clip that override the system preferences (see *Clip preferences*)

Fixtures menu



These options are duplicates of the icons on the toolbar. See *Programmer screen toolbar*.

Step menu

This option…	**does this…**
Prev Step (Ctrl+Left)	Jumps to the start of the previous step on the timeline.
Next Step (Ctrl+Right)	Jumps to the start of the next step on the timeline.
Insert step	Inserts a step at the point marked by the yellow diamond markers.
Delete step (Ctrl+D)	Deletes the selected step.
Split at cursor	Splits the selected steps at the point marked by the yellow diamond markers (see *Splitting steps*).

This option…	does this…
Split at Playhead	Splits the selected steps at the point marked by the green playhead marker line
Clear Contents	Clears everything in the currently selected step (the grey area on the timeline scale).
Renumber Steps	Opens the Step renumbering dialogue box

Tools menu

This option…	does this…
Insert clip	Opens the clip picker window so you can insert another clip inside the one being edited
Insert Commands	Displays the Insert commands window. This enables activate other clips or actions.
Insert ‘Mark’ Step	Displays the Insert Mark Step window. This enables you to move fixtures when their intensity is at zero so they’re in the right position when they turn on.
Grab active (Ctrl+G)	Grabs the active attributes of any clips currently playing (see *Grabbing*)
Grab full (Ctrl+F)	Grabs all the attributes of any clips currently playing (see *Grabbing*)
Align start	Aligns the start points of the selected events.
Align end	Aligns the end points of the selected events.

This option…	does this…
Chain	If you have several events selected, this option joins the beginning of the second to the end of the first, and so on, so they play in sequence.
Insert marker	Insert a marker on he timeline.
Remove markers	Removes any markers in the selected area of the timeline.
Associate	If you select multiple events of any kind this option combines them all into one so you can make large-scale changes to the timeline on multiple events.
UnTrack events (step only)	Undo the effect of the selected events in the following step. Equivalent to 'Cue-only'
Trim unselected events	Delete all events, that are not selected, in the current step
Block state of current step	Copy all tracked information to the current step
Unblock Clip	Removes any redundant programming from the clip
Markers to Steps	Converts makers in an empty step to steps
Learn Timing	Opens the Learn Timing window so you can set step start times by pressing the Go button at the required time.
Highlight	Opens the Highlight window so that you can set or modify the Highlight preset

View menu

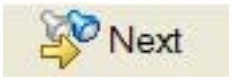
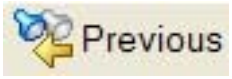
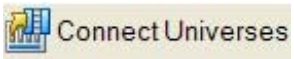
This option…	**does this…**
Timeline	Switches the programmer to the Timeline view
Fixture Chooser	Switches the programmer to the Fixture view
Step List View	Switches the bottom panel of the programmer to the Step List view (see *Managing steps in the Step list view).*
Control panels	Displays the various palettes and windows.
Fixture arrangement	Opens the fixture arrangement sub-menu so you can switch to a table or icon view and arrange fixture icons
Normal	Resets the timeline view to the default zoom.
Fit to window	Displays the entire timeline in the window at once.
Fit to step	Zooms the timeline window to show only the current step.
Fit to selection	Zooms the timeline window to show only the selected step.
Zoom in (+)	Increases the magnification level of the timeline window, decreasing the number of visible steps but showing more detail.

This option…	does this…
Zoom out (-)	Decreases the magnification level of the timeline window, increasing the number of steps visible and decreasing the level of detail.
Timeline autozoom	Opens the autozoom sub-menu so you can set the timeline to automatically zoom to either: Whole step – fits the step in the window, or Active part of step – shows all events in the step but excludes blank space at the start or end.
Snap to grid	Turns on the snap function so that events will automatically snap to the timeline grid.
Timeline Grid	Displays the Grid interval window so you can define the width of the timeline grid in milliseconds.
Set timeline origin	Sets the start point (zero seconds) of the timeline to either the start of the selected step, selected clip, or to the cursor point.
Show Audio Bar	Shows or hides the Audio bar on the timeline. To move the audio bar along the timeline, hold the yellow modifier (Ctrl) while dragging it.

Toolbars

Patch screen

This icon…	does this…
	Ignites the lamp(s) in the selected fixture(s).
	Switches the lamp(s) in the selected fixtures off.
	Resets the selected fixtures to their factory default settings. This is useful if a fixture has a control problem and you need to get it 'back to normal'.
	Puts the fixture back to its home position.

This icon…	does this…
	Parks the fixture permanently in whatever setting it's currently in. This is useful for providing permanent fixtures for backstage, orchestra pits and so on. Once you've parked a fixture it will ignore any further instructions you give it.
	Deselects whatever is selected and Selects the next fixture in this universe.
	Selects the previous fixture in this universe.
	Switches the selected fixture on. This is a toggle switch – while it's selected, Vista switches on fixtures as you select them.
	Displays the Connect Universes screen so you can attach external Ethernet-DMX interface boxes. See *Configuring external Ethernet-DMX interfaces*.

Programmer screen

This icon…	does this…
	Displays the list of summary options (see *Using the summary views*).
	Cuts the selected events.
	Copies the selected events
	Pastes any cut or copied events at the point on the timeline marked by the left-hand yellow triangle marker.
	Undo (Ctrl+Z)/Redo (Ctrl+Y)
	Previous/Next fixture selection. Vista remembers the last set of fixtures you selected; you use these icons to toggle back and forth between these selections.
	De-selects all currently selected fixtures.
	Selects every fixture.

This icon…	does this…
	Inverts the fixture selection (i.e. all selected fixtures are de-selected and all de-selected fixtures are selected).
	Selects all the active fixtures (i.e. those in use in the current clip).
	Select all the fixtures that are programmed in the current clip.
	Align start/end. Align the start or end points of the selected events.
	Displays the Grab drop-down so you can grab either active or full events of the clip currently playing (see *Grabbing*).
	Displays the Effects window (*see Using effects*).
	Displays the Sort window (see *Selecting and sorting fixtures in* the timeline).
	Displays the Active filter window.
	Displays the Update (Clip / Preset) window
	Toggles between the highlight modes. When on the icon has a magenta background.
	Steps forward or back through the steps on the timeline.
	Displays the list of actions available at the end of a step: halt, follow on or trigger (see *Setting the end of step instructions*).
	Displays the list of fade path options (see *Setting the fade path*).
[	Displays the start time of the selected event in hours, minutes, seconds and hundredths of seconds.
	Displays the duration of the selected event.
]	Displays the end point of the selected event.
New Group	Creates a new fixture group containing all the currently selected fixtures.

This icon…	does this…
Update Group	Updates the current group to contain whatever fixtures are selected.
Delete Group	Deletes the selected group.
	Displays the list of available views.

Appendix 2, Installing new software

Software Clean Install

Before you perform a clean install from CD you should back up all your show data (the contents of the /data/ directory) as it will be completely erased during the installation process. To do this, you can either manually export each show to a CD or USB memory device using the Vista -> Export menu, or use FTP to remotely transfer your files from the console. The procedure for using FTP is described below

To completely reinstall the operating system and all files on the hard drive:

1. Backup any required show data from the hard drive.
2. Insert an Installation CD into the consoles CD ROM drive. Leave the armrest open.
3. Shutdown console.
4. Restart console. Console will boot from the CD.
5. Follow the installer prompts to perform a clean install (using the touchpad only). Installation takes approximately 10 minutes.
6. When prompted click OK to finish. Leave the armrest open at this stage and remove the CD when it is ejected. The console will shutdown by itself.
7. Restart the console, CD ROM will close. It will start normally and automatically run the new software version.

Tip: This procedure completely reinstalls the operating system and all files on the hard drive, which takes approximately 10 minutes to complete. All show data on the hard drive will be lost!

Installing software updates

The Vista software consists of the following three components:

- Application
- Fixture Library
- Drivers.

To view the current installed version of each component select 'About Vista' from the Vista menu.

If required, software update files can be downloaded from the Jands web site. Burn the file(s) to a CD (standard data CD, ISO9660 format) using common CD burn software, or upload the files to the console using FTP.

To upload software update files to the console through an Ethernet connection from a normal computer:

1. Select 'User Preferences' from the Vista menu and note the console's IP address.

2. On the computer start an FTP client (eg. Internet Explorer 5.0, Fetch) to the consoles IP address (eg. ftp://192.168.0.65/), username = vista-update, password = update.

3. This will display the /vista/update directory. Copy the software update file(s) *.tgz to this directory on the console.

With the software update file(s) on a CD or on the consoles hard drive, apply the update to the console;

1. Select 'Check For Updates' from the Vista menu.

2. Select 'Update from CD' or 'Update from FTP upload directory'.

3. Open a *.tgz file.

4. Tick the required software component(s) to update and follow the prompts.

Tip: Installing updates does not overwrite the show data on the hard drive.

Connecting to the console via FTP

You can take advantage of the Vista's built-in FTP server to move files from a Mac or PC to the Vista or vice versa using FTP (File Transfer Protocol, a common method of file transfer).

Hardware Setup - Connect the console and computer to an Ethernet hub or switch using a standard Ethernet cable, or connect the two devices to each other using a crossover Ethernet cable.

Vista Software Setup

Open the User Preferences from the Vista menu, select the General tab and check the 'IP Address' setting. If the IP address is already set, make note of the address and close the Preferences. If there's no IP address or it's set to 0.0.0.0, you'll need to assign one. The address is four groups of numbers from 0 to 255, all connected by periods. Typically, you'll use an IP addresses starting with 192.168 (e.g., 192.168.0.65).

Computer Software Setup

Check that the computer's TCP/IP properties are set to a different IP address in the same subnet (192.168.0.100, for example). The subnet mask should be, 255.255.255.0.

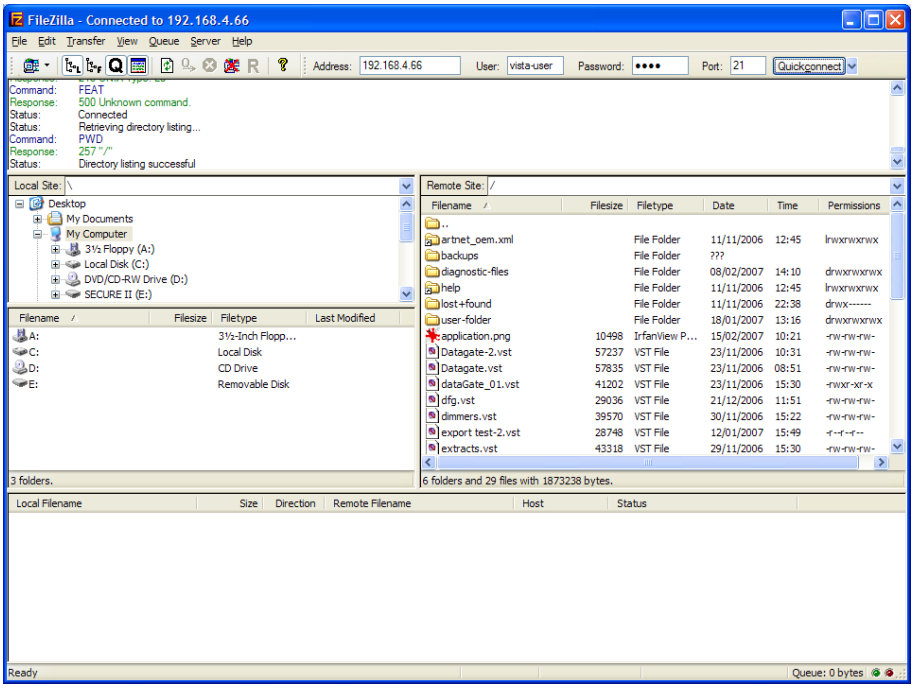
If necessary refer to your computers documentation for how to set the IP address.

Using FTP

On the computer start an FTP client such as Filezilla, FTP Commander or CuteFTP and open a connection to the consoles IP address (192.168.0.65). The connection requires a username and password as follows:

Username: vista-user
Password user

If you use a graphical FTP client such as those mentioned above the contents of the consoles Show Data directory and sub folders will be displayed in a window such as this:.


FileZilla - Connected to 192.168.4.66
File Edit Transfer View Queue Server Help
Address: 192.168.4.66 User: vista-user Password: •••• Port: 21 Quickconnect
Command: FEAT
Response: 500 Unknown command.
Status: Connected
Status: Retrieving directory listing...
Command: PWD
Response: 257 "/"
Status: Directory listing successful
Local Site: \
Desktop
My Documents
My Computer
3½ Floppy (A:)
Local Disk (C:)
DVD/CD-RW Drive (D:)
SECURE II (E:)
Filename Filesize Filetype Last Modified
A: 3½-Inch Flopp...
C: Local Disk
D: CD Drive
E: Removable Disk
3 folders.
Remote Site: /
Filename Filesize Filetype Date Time Permissions
artnet_oem.xml File Folder 11/11/2006 12:45 lrwxrwxrwx
backups File Folder ???
diagnostic-files File Folder 08/02/2007 14:10 drwxrwxrwx
help File Folder 11/11/2006 12:45 lrwxrwxrwx
lost+found File Folder 11/11/2006 22:38 drwx------
user-folder File Folder 18/01/2007 13:16 drwxrwxrwx
application.png 10498 IrfanView P... 15/02/2007 10:21 -rw-rw-rw-
Datagate-2.vst 57237 VST File 23/11/2006 10:31 -rw-rw-rw-
Datagate.vst 57835 VST File 23/11/2006 08:51 -rw-rw-rw-
dataGate_01.vst 41202 VST File 23/11/2006 15:30 -rwxr-xr-x
dfg.vst 29036 VST File 21/12/2006 11:51 -rw-rw-rw-
dimmers.vst 39570 VST File 30/11/2006 15:22 -rw-rw-rw-
export test-2.vst 28748 VST File 12/01/2007 15:49 -r--r--r--
extracts.vst 43318 VST File 29/11/2006 15:30 -rw-rw-rw-
6 folders and 29 files with 1873238 bytes.
Local Filename Size Direction Remote Filename Host Status
Ready
Queue: 0 bytes

Files can now be transferred to and from the Vista by dragging them between the Vista ('remote site' window) and the PC ('local site' window).

Tip: If the console is not booting properly it maybe possible to copy files using this method.

Appendix 3, Using VNC on T series consoles

VNC password

The default password for VNC connections is 'password' You can change this in the Network tab of the User preferences window. For details see *Network preferences on page 156 :*

Starting VNC

To start the VNC server on a Vista T4 or T2:

1. Restart the console while holding down the first two function buttons above the tablet LCD.

2. Vista will automatically start the VNC server. From V1.10 there is no confirmation required.

3. Vista is now running the VNC server

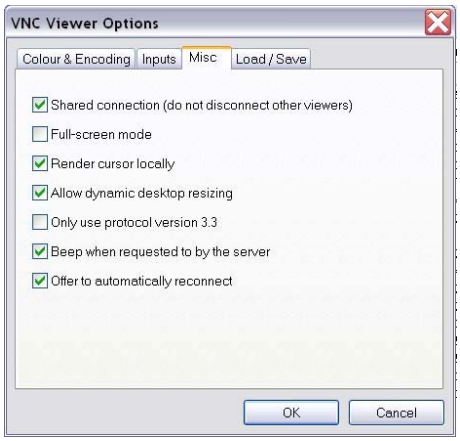
Connecting to Vista using your Windows PC

The following procedure is for the VNC Viewer application from Real VNC (http://www.realvnc.com/download.html). Other VNC clients for windows work in a similar way:

1. Check that the Vista and your PC are on the same subnet. I.E. if the Vista's IP is 192.168.0.68, your PC should be 192.168.0.xxx (where xxx is 1-254 but not 68).

2. Start the VNC client.

3. In the 'Connections Details' window click the Options button, then the Misc tab:



4. Tick the box marked 'Shared Connection (do not disconnect other viewers)'. Click OK to close the options window.

5. In the 'Connections Details' window enter the Vista IP (i.e. 192.168.0.65).

6. Click OK to open the login window.

7. Enter your password and click OK (leave the username blank).

You should now be able to control the Vista.

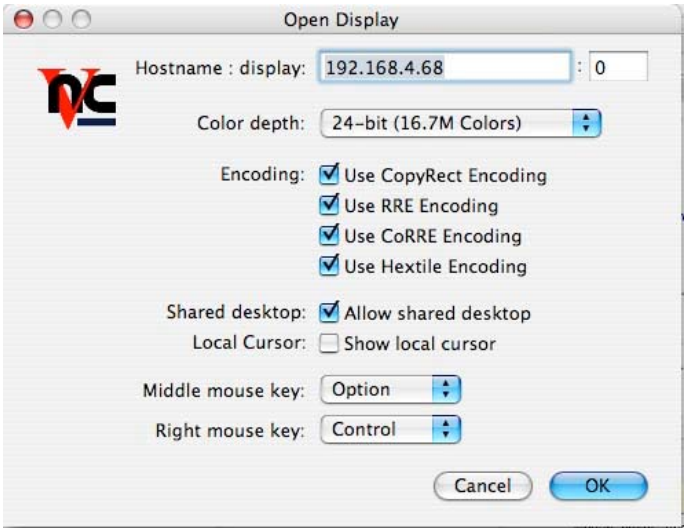
Connecting to Vista using your Mac

The following procedure is for the Mac VNCViewer v2.01. (http://homepage.mac.com/kedoin/VNC/VNCViewer/index.html). Other VNC clients work in a similar way:

1. Check that the Vista and your Mac are on the same subnet. I.E. if the Vista's IP is 192.168.0.68, your PC should be 192.168.0.xxx (where xxx is 1-254 but not 68)

2. Start the VNC client.

3. In the 'Open Display' window tick the box marked 'Allow shared desktop':



4. In the 'Hostname: display' window enter the Vista IP (i.e. 192.168.0.68).
5. Clear the entry in the box to the right of the IP (or enter 0)
6. Click OK.. VNC will open the login window
7. Enter your password and click OK (leave the username blank).

You should now be able to control the Vista.

Appendix 4, Using serial communication to control clips

You can activate and control clips by sending text commands via the serial port on the Vista T series consoles.

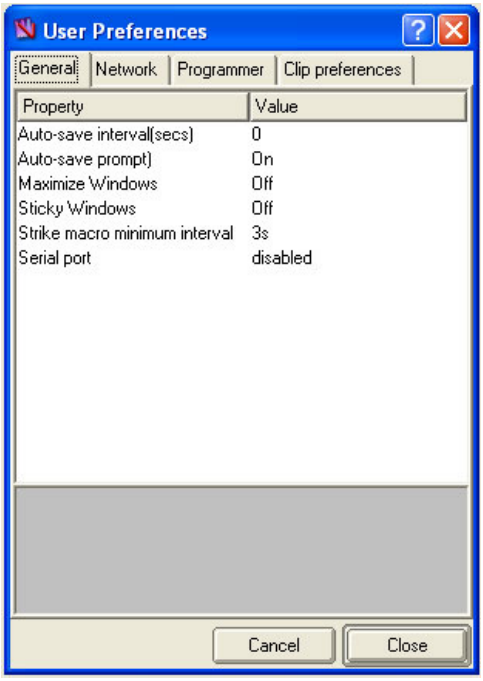
Connecting to the serial port

The cable that connects from the triggering device to the Vista should be a standard serial cable (also called a null-modem cable, or serial printer cable), not a serial cable extension. The important feature is that that pin2 at one end needs to be connected to pin 3 at the other end and vice-versa).

Tip: These steps do not need to be repeated unless the console software is completely re-installed using a restore CD or you forget the password.

Enabling the serial port

The computer or other device sending the trigger commands and the Vista must have their serial ports set to match each other. To set the Vista serial port select 'User preferences' from the Vista menu and click on the 'General' tab:



The serial port setting must be entered, without spaces, as follows: Data bits, parity, stop bits, rate (baud).

For example: 8N1-9600 (. 8 data bits, no parity, 1 stop bit, 9600 baud)

By default, the serial port preferences are set to disabled.

Command Syntax

All commands should be sent to the Vista as single lines of text in the form: command clipname [enter] (without the quotes).

The supported commands are:

- go
- rego
- pause
- release
- load

Examples

- go clip 1
- rego clip 24
- pause MyVerySpecialClip
- release clip37
- load showname.vst

Notes

- Make sure that there is an end of line character (return or enter) at the end of each command.
- Commands and clip names are *not* case sensitive.
- Spaces before or after commands and clipnames do not affect the behaviour.

Appendix 5, The touchpad and the pen tablet

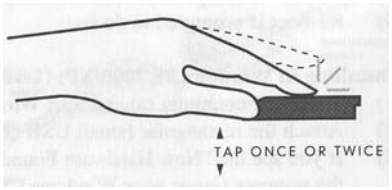
Using the touchpad

Like all pointing devices, the touchpad may take a short time to get used to. However you will soon find that using this device is natural and intuitive. Simply glide your finger across the surface of the pad to move the cursor and tap your finger to 'click'. It's easy!

Click

To click, lightly and quickly tap the surface of the pad once. Or, press the left button once.

To double-click, double tap on the pad or click the left button twice.



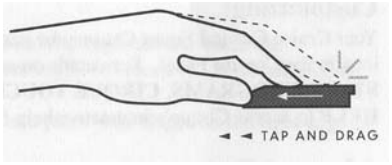
Remember, the touchpad responds best to a very firm, crisp tap.

Right Click

To right-click for submenus, tap the tap zone in the upper right corner of the touchpad or click the right button once.

Drag

To drag, draw, or highlight, double-tap rapidly and hold your finger down on the second tap, then glide to move. You may also hold the left button as you glide your finger.



Glide Extend

To drag further than the pad surface, lift and reposition your finger after reaching the textured edge. GlideExtend will virtually eliminate the edge of the pad while you drag. In other words, if you are dragging an item and you hit the textured edge, GlideExtend will hold the drag for three seconds while you reposition to complete the drag. To shut off GlideExtend earlier than three seconds, simply tap or click a button.

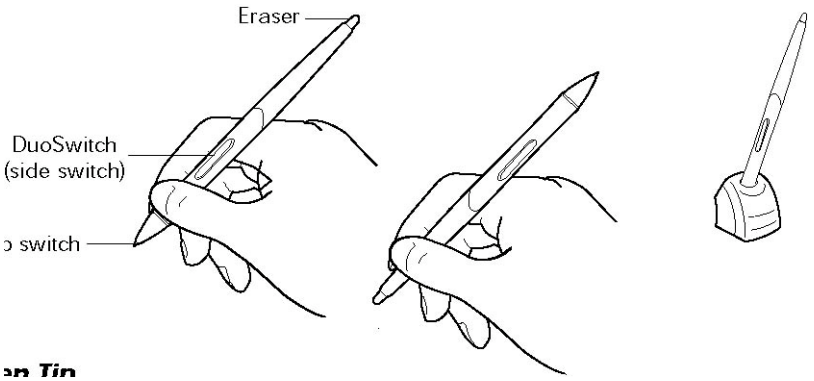
Scroll

To scroll, place your finger down the right edge of the touchpad and glide up or down. This feature requires third party software on Macintosh systems (see Macintosh advanced features section for USB version of Easy Cat).

Working with the grip pen

This information is kindly provided by Wacom, the pen tablet manufacturer.

As you work with the pen-tablet, you can rest your hand lightly on the display screen, just as if it were a drawing board or sheet of paper. Hold the Grip Pen as you would a pencil. Make sure the side switch is in a convenient location where you can press it with your thumb or forefinger, but won't accidentally press it while drawing.



Tip: The Grip Pen should never be stored in a container where it will rest on its tip or eraser. When the pen is not in use, place your pen in the pen holder or lay it flat on your desk.

Tip switch / Pen Tip

The pen is activated as soon as it enters proximity, about 5 mm (0.2 in), above the Interactive Pen Display screen. This allows you to position the screen cursor or use the DuoSwitch without touching the pen tip to the display screen.

When pressure is applied to the pen tip, the tip switch is turned *on* and the pen simulates a mouse button click.

Eraser

To use the eraser, hold the Grip Pen upside down. When the eraser is within proximity of the active area, the tablet reports the pen coordinates and the pressure applied to the eraser.

The eraser is not implemented in Version 1 of the Vista software.

DuoSwitch

The DuoSwitch can be used to perform the same click and double-click functions as the tip switch. Toggle the DuoSwitch in either direction to activate the upper or lower button functions.

Tip: If you do not care to use the side switch, you can remove if by following the directions in *Removing and installing the Duo Switch*.

Using a pen

Pointing and Selecting

Move the Grip Pen above the pen tablet display screen to position the screen cursor. The cursor jumps to the location where you place the pen (absolute positioning). Press the pen tip on the display screen to make a selection.

Clicking

Tap the display screen once with the pen tip, or touch the pen to the display screen with enough pressure to generate a mouse click.

Double-Clicking

Press the upper side switch, or quickly tap the display screen twice in the same place with the pen tip. Double-clicking is easier when the pen is perpendicular to the tablet screen.

Dragging

Select an object, then slide the pen tip across the display screen to move the object.

Erasing

Erasing is not currently supported in the Vista system.

Working with the Pen tablet

As you work with the pen tablet, you can rest your hand lightly on the display screen, just as if it were a drawing board or sheet of paper.

Because the drawing surface will be a little higher than a normal desk, consider adjusting the height of you desk or chair to assure comfortable use of the device.

When working with the pen tablet, maintain a good posture at all times and change your position if you feel any discomfort due to your work position or the weight of the tablet.

The Interactive Pen Display should be positioned so you can view it comfortably with a minimum of eyestrain.

Here are some other points to keep in mind:

- Take short breaks between tasks to stretch and relax your muscles.
- Use a gentle grip when working with the pen.
- Alternate tasks throughout the day.
- Minimize awkward postures and repetitive movements that cause discomfort.

Working with On Screen Display Settings

The pen tablet display is equipped with an On Screen Display function. The OSD function enables you to adjust and optimize a variety of display settings at the touch of a button. The OSD controls are located above the tablet.

Menu button	Select buttons	Enter button
Opens or closes the OSD menu	Opens or closes the OSD menu	Activates or de-activates the selected option

Selection buttons

Use these buttons to select an option that can then be activated when you press the **Enter** button.

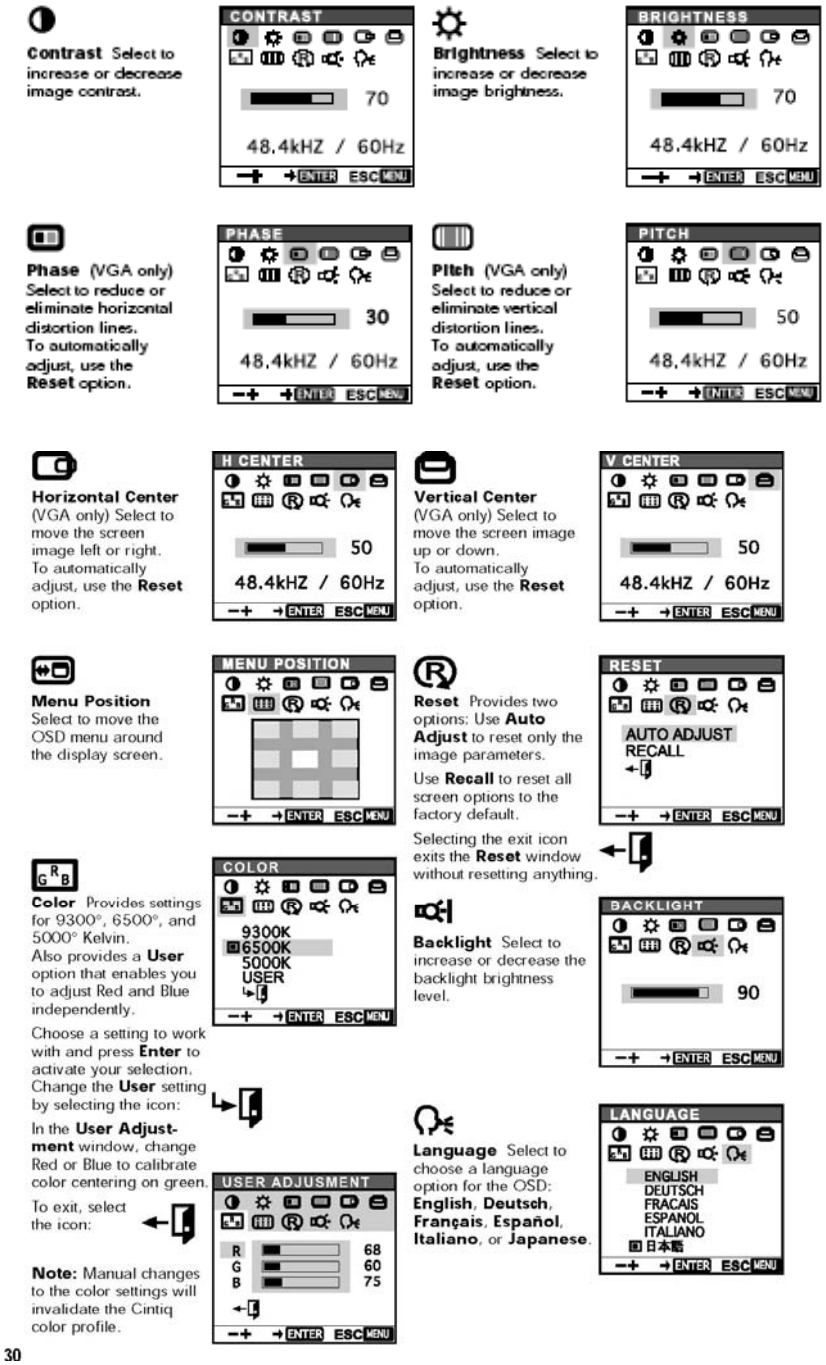
After activating a selected option, press the **+** button to increase a selected item value, and press the button to decrease it.

The basic process for working with the OSD is as follows:

1. Press the Menu button to open the OSD main menu.
2. Use the + or - buttons to select an option. When the option you want to adjust is highlighted, press the Enter button. The current settings and adjustment sub-menu for that option will appear.
3. Use the + or - buttons to adjust the option settings.
4. When you have made your changes, press the Enter button to save. To exit, press the Menu button.

Tip: All settings are automatically saved when the OSD menu closes. If you make changes to the display appearance and cannot return to the original settings, use the **Reset Recall** option to return The pen tablet to its original factory defaults.

When you open the On Screen Display (OSD), the following menu options are displayed:


Contrast Select to increase or decrease image contrast.
CONTRAST
70
48.4kHZ / 60Hz
ENTER ESC MENU
Brightness Select to increase or decrease image brightness.
BRIGHTNESS
70
48.4kHZ / 60Hz
ENTER ESC MENU
Phase (VGA only) Select to reduce or eliminate horizontal distortion lines. To automatically adjust, use the Reset option.
PHASE
30
48.4kHZ / 60Hz
ENTER ESC MENU
Pitch (VGA only) Select to reduce or eliminate vertical distortion lines. To automatically adjust, use the Reset option.
PITCH
50
48.4kHZ / 60Hz
ENTER ESC MENU
Horizontal Center (VGA only) Select to move the screen image left or right. To automatically adjust, use the Reset option.
H CENTER
50
48.4kHZ / 60Hz
ENTER ESC MENU
Vertical Center (VGA only) Select to move the screen image up or down. To automatically adjust, use the Reset option.
V CENTER
50
48.4kHZ / 60Hz
ENTER ESC MENU
Menu Position Select to move the OSD menu around the display screen.
MENU POSITION
ENTER ESC MENU
Reset Provides two options: Use Auto Adjust to reset only the image parameters.
Use Recall to reset all screen options to the factory default.
Selecting the exit icon exits the Reset window without resetting anything.
RESET
AUTO ADJUST
RECALL
ENTER ESC MENU
Color Provides settings for 9300°, 6500°, and 5000° Kelvin.
Also provides a User option that enables you to adjust Red and Blue independently.
Choose a setting to work with and press Enter to activate your selection.
Change the User setting by selecting the icon:
In the User Adjustment window, change Red or Blue to calibrate color centering on green.
To exit, select the icon:
Note: Manual changes to the color settings will invalidate the Cintiq color profile.
COLOR
9300K
6500K
5000K
USER
ENTER ESC MENU
USER ADJUSMENT
R 68
G 60
B 75
ENTER ESC MENU
Backlight Select to increase or decrease the backlight brightness level.
BACKLIGHT
90
ENTER ESC MENU
Language Select to choose a language option for the OSD: English, Deutsch, Français, Español, Italiano, or Japanese.
LANGUAGE
ENGLISH
DEUTSCH
FRACAIS
ESPANOL
ITALIANO
日本語
ENTER ESC MENU

30

Caring for the Cintiq pen tablet

Keep the Grip Pen and the Cintiq LCD screen surface clean. Dust and dirt particles can stick to the pen and cause wear to the display screen surface. Regular cleaning will help prolong the life of your LCD screen surface and pen. Keep Cintiq and the Grip Pen in a clean, dry place and avoid extremes in temperature.

Room temperature is best. Cintiq and the Grip Pen are not made to come apart (except where specifically indicated for removal and replacement of the pen's DuoSwitch). Taking apart the product will void your warranty.

Caution - If the pen tip becomes sharp or angular, it may damage the coating on the display screen. Please replace the pen tip if necessary.

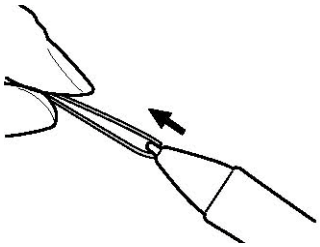
Cleaning the Pen-Tablet

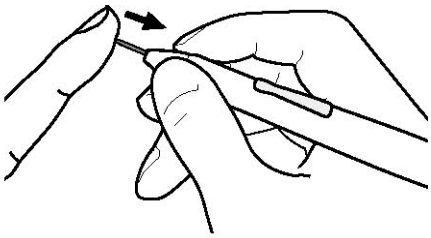
To clean the Grip Pen, use a soft cloth and mild detergent (such as dishwashing liquid) diluted with water. Do not use paint thinner, benzine, alcohol, or other solvents.

To clean the display screen, use an anti-static cloth or a slightly damp cloth. When cleaning, apply only a fixture amount of pressure to the display screen and do not make the surface wet. Do not use detergent to clean the display screen; this may damage the coating on the screen. Please note that damage of this kind is not covered by the manufacturer's warranty.

Replacing the Pen Tip

The pen tip will wear with normal use. When the pen tip gets too short, you can replace it with one of the extra tips that came with the pen.





To remove the old tip:

Clasp it with a pair of tweezers, needle-nosed pliers, or similar instrument and pull the old tip straight out of the pen.

To insert a new tip:

Slide it straight into the barrel of the pen. Firmly push the tip until it stops. The new tip will slide into the correct position.

If the pen tip wears and becomes angular, it may damage the coating on the Pen tablet display screen. To avoid this, periodic tip replacement is recommended.

WARNING Prevent children from swallowing the pen tip or side switch. The pen tip or side switch may accidentally be pulled out if children are biting on them.

Removing and installing the Duo Switch

Some users prefer to remove the DuoSwitch when working with the Grip Pen. For example, you may want to remove the switch in order to focus on a drawing and eliminate any accidental clicks that would occur if you unintentionally pressed on the switch. Note, however, that removing the DuoSwitch also removes the button functionality it offers. For most users it is unnecessary to remove the DuoSwitch.

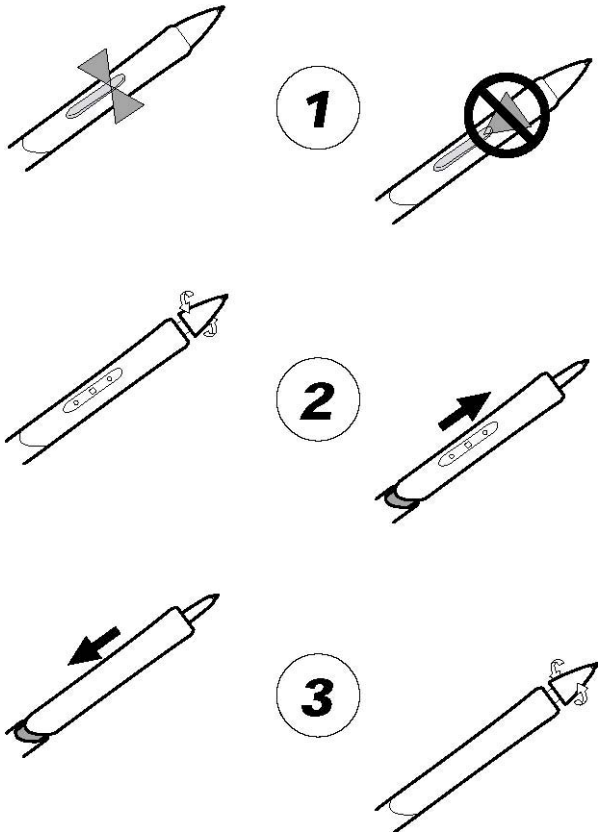
Important: Do not remove the switch by prying it from either end as this may damage your Pen. NEVER adjust the trimmer capacitor that will be visible when the switch is removed. When using the pen without the DuoSwitch, always replace the original rubberized grip with the optional grip in order to protect the trimmer capacitor.

To remove the DuoSwitch:

1. Firmly clasp the DuoSwitch in the middle and pull out. Press in on the rubberized grip in order to better grasp the switch.

2. Remove the pen tip cone by turning it counterclockwise. Then pull the grip forward over the pen tip.

3. Install the optional grip by aligning the pen case rails with the grooves inside the grip and pushing the grip over the pen tip. Then replace the pen tip cone by turning it clockwise onto the pen.

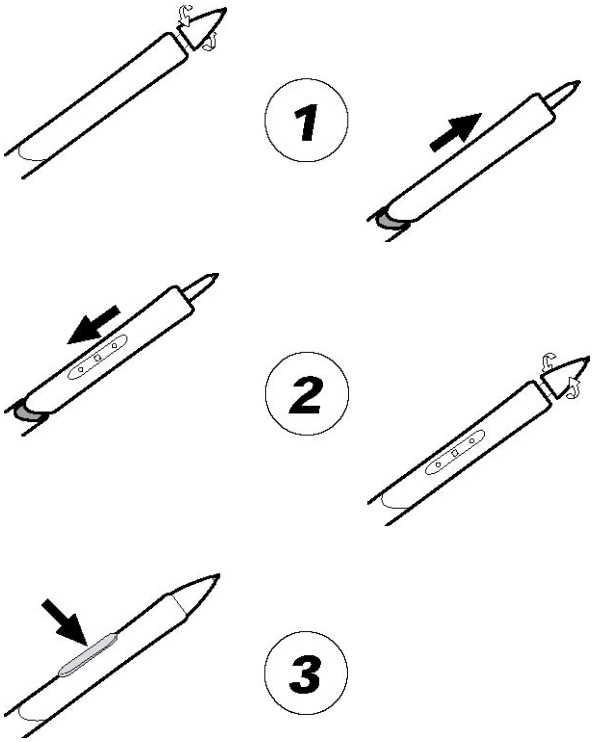


To Install the DuoSwitch:

1. Remove the pen tip cone by turning it counterclockwise. Then pull the grip forward over the pen tip.

2. Install the original grip (the one with the DuoSwitch access slot) by aligning the pen case rails with the grooves inside the grip and pushing the grip over the pen tip. When properly positioned, the DuoSwitch access hole will reveal the trimmer capacitor. Then install the pen tip cone by turning it clockwise onto the pen.

3. Align the DuoSwitch into place, making sure to match the switch position to the grip molding. Then gently press in on the DuoSwitch until it snaps into place.



Precautions on using and handling the Pen-Tablet

Temperature and Humidity

Operating temperature and humidity 5˚ to 35˚C, 20 to 80% RH

Storage temperature and humidity -10˚ to 60˚C, 20 to 90% RH

CAUTION. Do not use or store the pen tablet where:

- Temperature changes are severe or exceed specifications (e.g., outdoors or inside a vehicle).
- The pen tablet and the Grip Pen are exposed to direct sunlight or heat from an appliance.
- The pen tablet and the Grip Pen are exposed to water or any other kind of liquid.

CAUTION. Do not use The pen tablet in a dusty environment; this may damage the unit

Handling

WARNING: If the LCD screen has been damaged, DO NOT touch any liquid that may be leaking from it; this liquid is an irritant. In case of contact with skin, eyes, or mouth, rinse immediately with running water for at least 15 minutes or more. If contact is made with the eyes or mouth, also consult a physician.

WARNING: **Prevent children from swallowing the pen tip or side switch.** The pen tip or side switch may accidentally be pulled out if children are biting on them.

CAUTION: **Do not disassemble the Grip Pen.** This may cause the device to malfunction. In this case, Wacom shall have no responsibility to repair or replace the product.

CAUTION: Do not scratch the display screen. Avoid placing sharp objects on the display screen surface.

CAUTION: **Avoid intensive shock or vibration to the pen tablet or the Grip Pen.** Hitting or dropping the pen tablet display may damage the display screen or other components.

CAUTION: Do not put heavy articles on the Interactive Pen Display or push against it with a strong force; this may damage the display screen or bend the stand.

CAUTION: If the pen tip becomes sharp or angular, it may damage the coating on the display screen. Please replace the pen tip if necessary.

CAUTION: **Do not use any organic solvent (e.g., alcohol) or even mild detergent to clean the display screen**. Use of these cleaners can damage the coating on the screen. Please note that damage of this kind is not covered by the manufacturer's warranty.

To clean the display screen, use an anti-static cloth or a slightly damp cloth. When cleaning, apply only a fixture amount of pressure to the display screen and do not make the surface wet.

To clean the pen tablet casing or Grip Pen, use a soft cloth with mild detergent (such as dish washing liquid) diluted with water.

Appendix 6, Technical information

Power

	T4 / T2	E2	S3
Power Requirements:	100VAC to 240VAC +/- 10%, 50-60 Hz		
Power Consumption:	400 Watts max	40 Watts max	40 Watts max
Power Factor:	>85%		
Inrush Current:	90A @ 230VAC	30A @ 230VAC	30A @ 230VAC
Power Connector:	IEC 3-pin		

Service & Maintenance

With care Vista products will require little or no maintenance. However, the internal battery (in the T4 / T2 console only)will need to be replaced on a regular basis (see the following section).

If the front panel requires cleaning, wipe with a mild detergent on a damp soft cloth.

The CD drive mechanism battery (in the T4 / T2 console only) is mechanical and should always be treated with care. Never allow the entry of fluids into the slot.

DO NOT spray liquids onto the front panel.

DO NOT use solvents for cleaning the front panel.

Warning: Do not allow the entry of liquids of any sort into the console chassis.

The T4 / T2 CPU tray should be periodically cleaned to ensure dust does not build up near the fans.

Battery replacement

The Vista T4 / T2 console has an internal battery that is used to maintain system BIOS settings. The battery should last approximately 5 years from the date the battery was made. If the console reports BIOS check errors, please return the console to an authorised agent for battery replacement.

Installation

Vista consoles and control surfaces must be installed in a location that allows adequate ventilation around the rear of the product. There must be at least 150mm of free space around the rear and sides of the console when in use. Failure to allow adequate ventilation may result in premature shutdown of the console.

An external UPS may be connected if mains blackouts are anticipated.

T4 / T2 Shut down

Always use the correct procedure to shut the console down. Select 'Shutdown' from the console menu.

General Specifications

	T4 / T2	S3
Ingress protection	IP20	
Maximum Ambient Temperature	40C	
Cooling	Three speed controlled Fans	Convection
CPU	2.8GHz/533MHz Pentium 4	48MHz ARM7
RAM	512Mbyte, expandable to 1024Mbyte	228 kB
Hard Drive	40GB ATA100, shock mounted	N/A
Internal Tablet	Wacom PL550 graphics tablet 1024x768 pixels	N/A
External monitors	Two x 1024x768 pixel each	N/A
SMPTE input	0.1Vpp min, 1.2Vpp max, 1/30 – 10X normal	
Desk Lamps	Two x 5W max	One x 5W max

Inputs & Outputs

Description	Type	Pin Outs	Function
DMX 512 (1-4)	5 pin Female AXR	1 2 3 4 5	Shield Data – Data + Data – (DMX 4 only) Data + (DMX 4 only)
Ethernet (100BaseT)	RJ-45	1 2 3 4 5 6 7 8	Transmit + Transmit – Receive + Unused Unused Receive – Unused Unused
SMPTE (Audio)	3 pin Female AXR	1 2 3	Shield LTC – LTC +
MIDI In	5 pin Female DIN	1 2 3 4 5	NC Shield NC RX+ RXD
MIDI Thru/Out	5 pin Female DIN	1 2 3 4 5	NC Shield NC TX+ TXD
COM (RS232)	9 pin D	1 2 3 4 5 6 7 8 9	DCD RXD TXD DTR Gnd DSR RTS CTS RI
Trigger In	6.5mm Jack Socket	Tip Sleeve	Trigger In Ground
Trigger Out	6.5mm Jack Socket	Tip Sleeve	Trigger Out Ground

Description	Type	Pin Outs	Function
Video 1 Video 2	15 pin High Density D	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	Red Green Blue NC Ground Red Ground Green Ground Blue Ground Vcc Sync Ground NC VD Data Horizontal sync Vertical sync VD Clock
USB	Type A	1 2 3 4	Vcc Data – Data + Ground
Audio Mic	3.5mm Jack socket	Tip Sleeve	Signal Shield
Audio Out	3.5mm Jack socket	Tip Ring Sleeve	Left Right Shield
Audio Line In	3.5mm Jack socket	Tip Ring Sleeve	Left Right Shield
Desk Lamp 1 Desk Lamp 2		1 2 3	Chassis Lamp – 12V

Index

A

About Vista window, 161
Activate on flash, 159
Active HTP, 159
adding
  events to the timeline, 65
  fixtures with same ID, 16
Advanced Properties, 20
aligning
  start and end points, 57, 71
applying
  saved sort methods, 112
applying extracts, 89
arranging extracts, 89
ArtNet
  Broadcast Mode, 27
  compatible devices, 26
assigning
  audio to a clip, 113
attributes
  selecting events by, 92
audio
  assigning to a clip, 113
Audio Volume, 154
Auto, 31
Auto blind Live Tab, 158
Auto-go when paged in, 160
Auto-save interval, 154
Auto-save prompt, 154

B

Background click deselects fixtures, 158
backup
  shows, 6
backups
  exporting shows (backing up), 7
battery, 192
beam, 42
  setting, 42
blind, 91
blocking
  include all tracked events in a step', 87
bottom pane of a layout, 33

C

calibrating the pen, 162
canned effect
  applying, 96
chaining events, 71
changes history, 114
changing
  colours, 120
  console configuration, 161
  fonts, 120
  single steps, 87
  universes, 14
Channels, 20
chase tab, 136
checking that your fixtures are working, 36
clip
  assigning audio to, 113
  block step, 87
  creating, 65
  ganging to synchronise playback, 114
  grabbing, 92
  modify steps, 77
  moving around in, 62
  moving events around, 66
  moving tracks between, 113
  playback control window, 116
  playing, 62
  preferences, 159
  progress indicator, 63, 78
  properties, 135
  selection handles, 67
  timeline and, 56
  using commands within, 90
  view step list, 77
Clip pane, 116
clips, 56
cloning fixtures, 24
CMY, 41
colour
  changing, 120
  setting, 39
colour wheel, 41
commands

within clips, 90
components
assigning to controls, 129
organising, 143
Components window, 143
connecting to the console via FTP, 176
console
configuration, changing, 161
configuring the console, 47, 124, 128
layout, 121
modifier keys, 123
output, grabbing, 92
pages, 139
snapshots, 139
contrast, setting for desklights and LCDs, 161
Control menu, 164
controls
effects, 102
converting
markers to steps, 83
copying
the swing start or end setting, 99
using drag and drop to copy steps, 80
creating
a show, 5
clips, 65
extracts, 88
groups, 49, 53
presets, 50
Crossfade HSV fast, 157
customising
preferences, 153
the Playback control window, 120

D

date and time, 162
Deactivate on flash, 159
Default colour mechanism, 157
Default Crossfade Time, 160
Default end-of-step action, 160
default settings, 154
Default Step Duration, 160
Default Step Increment, 158
Default Step Name, 158
deleting
fixtures, 19
layout views, 33
shows, 7
desk lights, 3
Desklight & LCD Contrast settings, 161
Disabled Programmer Intensity Faders, 158
disconnecting
an interface box, 27
Display Raw channels in percent, 158
Display values above controls, 159
DMX window features, 151
DMX Window, using, 150
DMXinterface
configuring, 25
dousing a fixture, 22
dual gobo, 44
duplicating
layout views, 33

E

Edit menu, 163, 166
editing
extracts, 89
in the Playback control window, 120
editor
preferences, 156, 157
effects, 98
applying canned effects, 96
controlling, 102
merging, 100
modifying, 100
reviewing, 101
saving, 100
splitting, 100
swinging between two presets, 97
using, 96
Enable Pen-tip button, 154
Ethernet-DMX interface
changing settings of, 28
configuring, 25
connecting, 26
disconnecting, 27
setting the port, 26
event bars, 57, 58
events
aligning start and end points, 57, 71
chaining, 71
fade path, 71
pre-determining event lengths, 77
selecting by attribute, 92
selection handles, 67
steps, 75

trim unselected, 87
expanding playbacks, 130
exporting shows, 7
external displays, 3
external window utility, 162
extracts
applying extracts, 89
arranging extracts, 89
creating and applying extracts, 88
creating extracts, 88
editing, 89

F

Fade all attributes, 160
fade path, setting, 71
Fade-in time, 160
fanning, 50
favourites
adding fixtures to, 14
feature
summarise by, 59
filters
choosing, 61
creating custom filters, 62
deleting, 62
Fixture, 19
Fixture Id, 19
fixture library, changing, 162
Fixture Name, 19
Fixture Type, 19
fixtures
adding to groups, 49
adding to the patch panel, 10
arranging fixtures in a layout, 30
checking that your fixtures are working, 36
choosing, 9
choosing by manufacturer, 9
cloning, 24
controlling, 21
defining favourites, 14
deleting, 19
dousing, 22
Fixtures screen, 29
hiding and 'unhiding' fixtures, 32
import patch from CSV, 24
parking, 22
patching, 9
properties, 19
putting into the pool, 17
rearranging on the patch panel, 14
renaming, 15
renumbering, 16
resetting, 22
selecting, 150
selecting subsets, 109
sending to home, 22
setting up your fixtures, 29
short names, 15
sorting, 109, 111
striking, 22
summarise by, 60
swapping, 18
swapping types, 17
with same ID, 16
Flash level, 160
focus, 42
fonts
changing, 120
framing, 45
Free, 31
frost, 42
FTP
connecting via, 176
function keys
assigning, 121

G

ganging, 110
clips to synchronise playback, 114
gels
manufacturer, 40
general tab, 135
generic fixture model, 1
Go on fader up, 160
gobo, 43
dual, 44
setting, 42
grabbing clips, 92
Grid, 32
grouping groups, 50, 53, 146
groups
adding fixtures to, 49
creating, 49, 53
grouping, 50, 53, 146

H

hardware, 121
Hide Inapplicable Events, 158

hiding
fixtures, 32
history, 114
home
setting a fixture to, 22
Horizontal Spacing, 32
HSV, 40
HTP Intensity, 159
hue, 40

I

IDs, 32
importing shows, 6
Inhibit Inapplicable Events, 158
inputs & outputs, 194
inserting
a 'Mark' step, 85
installation, 193
installing
software updates, 175
intensity
palette, 37
setting, 37
Intensity, 20
Invert pan, 20
Invert tilt, 20
IP Address, 156
IP Gateway, 156
IP Net mask, 156
iris, 42

J

jump
using the keyboard, 127

K

keypad
in the programmer, 95

L

labels
adding to the layout window, 33, 34
language, setting, 162
layout
adding labels, 33, 34
arranging fixtures in, 30
bottom pane of, 33
different views, 30
layout view
arranging, 33
bottom pane display, 33
deleting, 33
duplicating, 33
layout window
adding labels to, 33, 34
LCDs
screensaver, 162
learn timing
adjusting step markers, 83
learning actions, 91
Lee swatchbook, 40
library, changing the fixture library, 162
Limit, 20
list view, 23
loading
existing shows, 5
Lock, 32

M

Maintain state, 160
managing steps in the Step list view, 77
manufacturer
choosing a fixture by, 9
gels, 40
mark step
inserting, 85
markers
adding to the timeline, 82
convert to steps, 83
removing, 83
Maximise windows, 155
menu
Control menu, 164
Edit menu, 163, 166
Patch screen menus, 163
Programmer screen menus, 165
Session menu, 165
Step menu, 167
Tools menu, 168
View menu, 163, 170
menu reference, 163
merging
effects, 100
modifier keys, 123
modifying
effects, 100
monitoring, 147

monitoring active clips, 116
monitors
  resetting windows, 162
move or copy steps, 79
moving
  events around, 66
  fixtures around the patch panel, 14
  tracks to another clip, 113

N

Name, 32, 159
names
  renaming fixtures, 15
  short fixture names, 15

O

Offset, 21
organising
  components, 143
Orientation, 20
output
  DMX Window, 150
  using the the output window, 148
output window
  chosen clip, 148
  context menu, 149
  rate, 148
  sorting the Fixture List, 148
outputs & inputs, 194

P

Page controls, 124
pages, 139
palettes, 35
  common features of the palettes, 35
park
  fixtures, 22
password-protecting shows, 6
patch
  importing a CSV file to, 24
  viewing in different ways, 22
patch panel
  adding the fixture to the patch panel, 10
  moving fixtures around, 14
  rearranging fixtures on, 14
patch screen, 21
  menus, 163
  toolbar, 171
patching
  adding fixtures to the patch panel, 10
  adding fixtures to the rig, 9
  by manufacturer, 9
  complete fixture list, 9
patching your rig, 8
pen, 183
  calibrating, 162
Pen tablet module, 121
percentage
  intensity, 39
playback
  assigning components to controls, 129
  status indication, 133
playback buttons
  assigning functions, 130
  group masters, 137
Playback Control Window, 116
Playback mode, 160
Playback rate %, 160
playbacks
  expanding, 130
  standard and split modes, 129
  with faders, 124
  without faders, 124
playbacks, updating, 52
pool
  putting fixtures into the pool, 17
position
  setting, 37, 38
power, 3
Power, 192
Prefer Fixed, 40
Prefer Mixer, 40
preferences
  clip, 159
  editor, 156, 157
  general, 154
  setting, 153, 154
preferred mode, 40
Preheat, 20
presets
  availability, 54
presets
  creating, 50
  labels, 54
  quick picker, 54
presets
  swinging between, 97
presets, updating, 93

Preview Fixtures, 158
Priority, 159
prism, 42
programmer
  storing to a clip, 72
Programmer priority, 157
Programmer screen menus, 165
Programmer screen toolbar, 172
programmer, using the keypad, 95
progress indicator, 63, 78
properties
  fixtures, 19
  setting clip properties, 135

Q

Quick Picker, 54

R

raw
  beams and gobos, 46
  colour, 42
  setting raw intensity and position values, 39
  setting transparent, 46
reinstall software, 175
Release (Fade-out) time, 160
Release all, 5
Release when overriden, 160
Release-all on page change, 155
remote control, 178
removing
  markers, 83
renaming
  fixtures, 15
renumbering
  fixtures, 16
resetting windows on external monitors, 162
rest
  fixtures, 22
Restore Defaults, 32
reviewing effects, 101
RGB, 41
right-click
  using the LR button, 123
rotation, 45

S

saturation, 40
saving
  copies of shows, 6
  effects, 100
  password-protecting, 6
  shows, 5
  sort configurations, 112
  sort methods, 112
screensaver, 162
Screensaver wait time, 155
selecting
  events by attribute, 92
  subsets of fixtures, 109
selection handles, 67
serial control, 181
Serial Port, 155
service & maintenance, 192
Session menu, 165
set timing window, using, 70
setting
  language, 162
setting
  colour, 39
  preferences, 153
setting clip properties, 135
setting intensity and position, 37
setting preferences, 154
setting up
  fixtures, 29
short names
  for fixtures, 15
show
  backup, 6
  creating a show, 5
  deleting, 7
  exporting shows (backing up), 7
  importing shows, 6
  loading existing shows, 5
  password-protecting, 6
  saving, 5
  saving copies of, 6
Show Grid, 32
shutters, 45
Skip state in jumps, 160
slider
  intensity values, 37
SMPTE, 153, 154
snapshots, 139

software updates, 175
  installing, 175
software version, 161
sort configurations
  saving, 112
sort methods
  applying, 112
  saving, 112
sorting
  fixtures, 111
  fixtures in the timeline, 109
  the Fixture List, 148
specifications, 193
split modes, 129
Split Step Creation, 158
splitting
  effects, 100
splitting steps, 82
standard mode, 129
Step Label Format, 158
Step menu, 167
Step pane, 117
steps
  block, 87
  chaning single steps, 87
  end of, 76
  inserting a mark step, 85
  managing in list view, 77
  move or copy, 79
  pre-determining event lengths, 77
  setting the 'end of step' instructions, 76
  splitting steps, 82
  step list view, 77
  using drag and drop to copy steps, 80
  working with, 75
Sticky windows, 155
storing
  from the live programmer, 72
  modulating effects, 97
  swinging effects, 97
Strike Macro Minimum interval, 155
striking a fixture, 22
Subdivisions, 32
subsets of fixtures, 109
subsets of fixtures, selecting, 109
summary
  by feature, 59
  by fixture type, 60
  no summary view, 61
summary views, 59
Super Playbacks controls, 125
Swap pan/tilt, 20
swapping
  fixture types, 17, 18
swing
  making an effect swing, 99
swing start or end setting, copying, 99
swinging
  between presets, 97
Symmetrical, 21
synchronise playback by ganging clips, 114

T

table view, 23
technical information, 192
time and date, 162
timecode, 153, 154
timecode tab, 137
timeline
  about, 56
  adding events to, 65
  adding markers to the timeline, 82
  aligning start and end points, 57, 71
  end of event commands, 76
  event bars, 57, 58
  fade path, 71
  learn timing, 83
  moving events around, 66
  steps, 75
  zooming in and out, 64
timing
  adjustments, 69
  using the set timing window, 70
toolbar
  Patch screen, 171
  Programmer screen, 172
Toolbar, 171
toolbar reference, 163
Tools menu, 168
touchpad, 183
tracks
  mvoing between clips, 113
transformers, 20
transparent
  raw setting, 46
trigger clip, 181
trim

remove unselected events', 87
tutorials, 106

U

universes
changing, 14
update software, 175
updating
live playbacks, 52
presets, 93
USB interfaces, 26
user preferences, 153
user preferences, setting, 154
using effects, 96

V

version of software, 161
Vertical Spacing, 32
view
the rig, 22
using different views, 30
View menu, 163, 170
viewing
patch in different ways, 22
views
list view, 23
table view, 23
vnc, 178
VNC Password, 156

W

Wheel Sensitivity, 158
windows
resetting on external monitors, 162
WYSIWYG host address, 156

Z

zoom, 42
Zoom, 32
zooming in and out, 64